

The Australian COMMODORE and AMIGA REVIEW

**Alter Image
Video Starter Pack**
Reviewed



Wordworth v1.01 © 1991
Document: AMI-Report

8:12 PM

EDITORIAL Wordworth Write Up

At last, after a long time (and a few
uplink, actually) and everything seems to be
moving along pretty smoothly. In the first issue
I was told that I was too wide and that I was to
have my own column (no one's going to
laughed). Messages of praise (two) far
outweigh the messages of scorn (none) so
I'm going to do it again.

I did part of what I promised last issue: get
a net address for FidoNet (two of them,
actually) so hate mail can be sent in private.
I will initiate accounts on GEnie and Delphi this weekend and
hope to have my own accounts there soon
instead of relying on Ralph of ST-Report
to distribute AMI-Report.

I've got an application in to Commodore
for Certified Developer status
(yes, I do actually write
commercial programs) and I

Latest Games Reviewed



C64 RAMLINK . World of Commodore Show Report

Comparison: Personal Organisers

Education . Hints and Tips . C64 and GEOS Column

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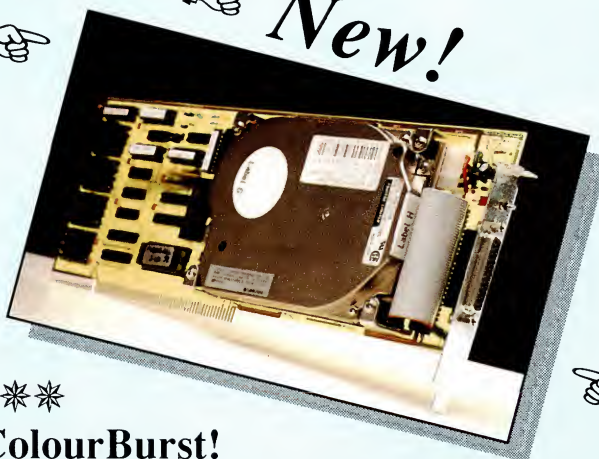
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Latest Amiga news, gossip and new releases

4

Amiga

Show Report

Wordworth

Alter Image

Keeping Track

Flash 2000

CLI Tutorial Part 13

Turbotext

Creating Batch Files

Andrew Farrell	All the fun of the Sydney World of Commodore	9
Andrew Farrell	This new heavy duty wordprocessor looks great	14
George Kimpton	Desktop video - a new genlock	19
George Kimpton	Some programs to remind you of important happenings	26
Combination SCSI	Interface and RAM expansion card	36
Andrew Leniart	Coming to grips with the CLI - for beginners	44
Tim Strachan	A powerful new text editor	54
Tim Strachan	Tutorial - customise your startup-sequence etc	56

C64 / 128

Ramlink

The C64 Column

GEOS Column

C64 Graphics & Sound

	Multi function compatibility interface	22
Owen James	Roundup of cartridges; letters answered	50
Owen James	Laser output, Gateway desktop, letters	47
Greg Perry	Easy sprites and multicolour sprites	60

Education

Things to do with Words

Things to do with Numbers

Anne Glover	Word games for young ones	40
Anne Glover	Playing with numbers and time	42

Entertainment

That's Entertainment

CDTV Launch

Game Reviews

Quickshots

Adventurer's Realm

News, Hints & Tips, Letters, Competition, Hall of Fame	65
A new source of entertainment	69
Turrican II, Big Box, Death Knights of Krynn, Spirit of Excalibur, Hill St Blues.	70
Vector Championship Run, Jockey Wilson's Darts, Super Off Road, Ninja Rabbit, King's Bounty, Battleset II for Harpoon	78
Help, Hints, Problems, Chit-chat, The Dungeon	75

Advertisers Index

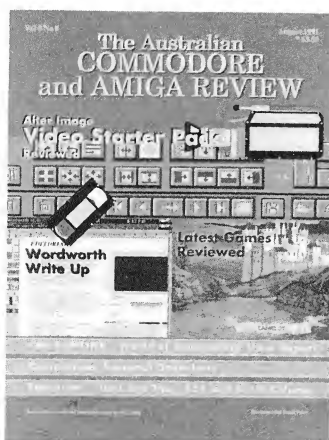
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NO. 8
AUGUST
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Editorial

CDTV - The Launch

When a product launch takes place there's always the chance you'll get to see something unexpected. Maybe the embarrassed face of one of the company executives as the new product fails to perform. Other times it's screams from public relations people as prying journalists ask pointed questions. And occasionally it's a horse trotting up and down the aisle with a man on its back singing



Rhinestone Cowboy as the animal relieves itself on the carpet. In the case of the CDTV launch, the product performed beautifully and the journalists were impressed, but the horse was there in all its glory to kick off this splendid occasion.

Apart from the horse, the only other animal at the launch was the video wall, which gave Commodore's Gary Mason a little trouble. Nevertheless, Commodore International's Special Projects Director, Gail Wellington, did a splendid job of coping with the pressures of a couple of equipment hiccups, and went on to soothe the crowd with a good number of impressive demonstrations, culminating in the amazing Psychonosis game *PlanetSide*.

At the end of it all I was convinced CDTV would be a big hit. There's no doubt once you see the product working under the guiding hand of an experienced user it looks very impressive. However, it is one very expensive games machine. And at over \$2,000 for the player plus Grolier's Encyclopaedia disc, it doesn't quite have the same status level as a set of 21 leather-bound books. Sales might be a trickle before they become a flood.

For me, the really exciting thing would be the launch of the A690 external CD-Drive for the Amiga 500. According to Wellington, a similar device will be available for the A2000/3000. Future releases of reference works will support clipboard to enable text and hopefully graphics to be easily included in your own documents. The A690 might be here before December at a bit under \$1000. If they can just push the price a bit lower, Commodore should be able to sell a squillion.

I for one would prefer to have a CD-Drive than a player. After all, even though CDTV looks at home in your Hi-Fi system, chances are not all the family are going to agree. Some of them may want to watch *Neighbours*. The technology is slick, but it will take a while to educate consumers that what looks like not much more than a CD player is in fact a powerful interactive multimedia machine.

So, yes CDTV is fantastic. Yes, it has the potential to bring computer technology to a much larger group of consumers than computers alone. But, right now we need the external CD drive. It will create a bigger market for the software companies who might not be able to wait around for everyone to realise how useful a CDTV really is. Local applications are also very important. At the moment, there are still only a few people looking into producing Australian titles, but this may change as the path is made clearer.

Overall, it was a very enjoyable evening. Hopefully the daily press will pick up on CDTV, along with general interest magazines. It deserves plenty of coverage. Congratulations to Commodore for having the foresight to combine the technologies of Infra-Red control, CD and Computer to create a product that may yet revolutionise home entertainment and education.

Andrew Farrell

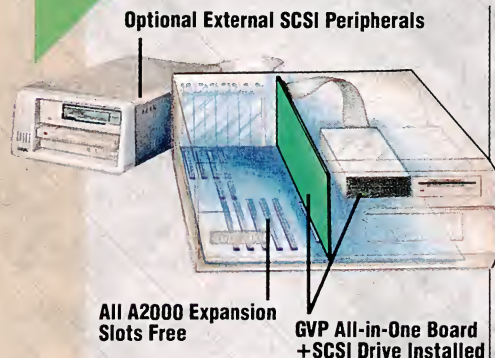
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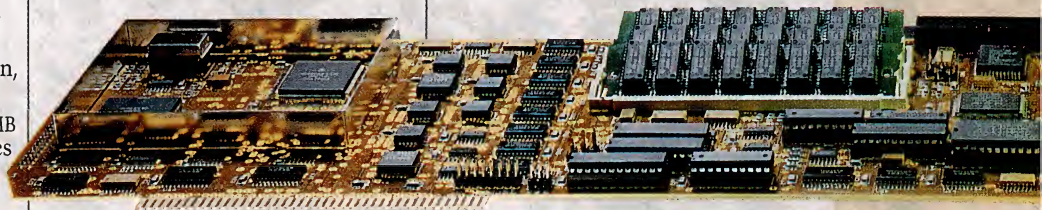
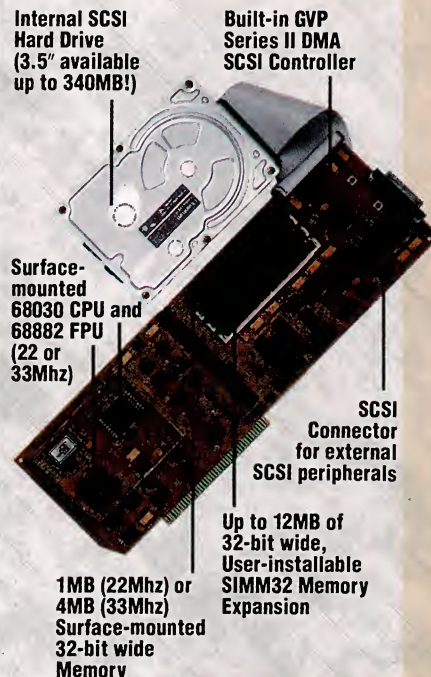


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Audio Engineer Junior

Aussie companies RamScan Software and GSoft Pty. Ltd. have just announced the release of *Audio Engineer Junior*, a premium quality Amiga sound sampling and editing package. Derived from their world renowned *Audio Engineer Plus*, the Junior offers uncompromising performance and ease of use. The software supplied with the package is a full featured version of the renowned *Audio Engineer* package (sold overseas as *Audio Master III*). The package features 56k sample rates, the ability to use all available fast memory, extended audio frequency response and electronic volume control. The result is performance that is probably unrivaled by anything other than the *Audio Engineer Plus* system itself.

Most budget priced samplers promise good performance but fail to deliver. With *Audio Engineer Junior* you will not be disappointed. *Audio Engineer* comes bundled with a Compact Disk player simulator program that can be used to replay up to 20 samples. *Audio Engineer Junior* is available in most Amiga shops now for about \$99.00. *Audio Engineer Junior* is distributed in Australia by GSoft Pty. Ltd (08) 254 2261.

Prima Drives

Amiga hardware pioneer ICD Incorporated has launched the Prima, a low cost, high performance hard drive designed to fit 52 or 105 megabytes of storage inside an Amiga 500. Built around the new generation of low power, 11 millisecond 3 1/2 inch hard drives from Quantum, the new Prima won't take up limited desk space with bulky external boxes or cabling.

Instead, Prima is specially designed to fit inside your A500 - in place of the internal floppy drive - and includes an extra internal adapter, called the ShuffleBoard, for converting your external floppy drive for use as DF0:

Along with being fully auto configuring, Prima's advanced performance fea-

tures include autobooting from FastFile System partitions, high speed disk caching and complete support for AMax-II.

Prima provides a complete hard drive upgrade package for any Amiga 500 system already equipped with a switching power supply, at least one megabyte of RAM and an external floppy drive.

ICD has been providing state of the art mass storage solutions for microcomputer owners since 1984, and is one of the largest hardware companies in the Amiga marketplace. In addition to a full time technical support staff, ICD offers product support and update files on their own in-house BBS, CompuServe and GENie. For more information contact Maxdrives on 018 717 506.

GVP acquires Lake Forest Logic

Great Valley Products has acquired the entire product line of Lake Forest Logic, Inc. of Lake Forest. They have also appointed Lake Forest's Erik Quakenbush as director of software development.

In making the announcement Gerard Bucas, president of GVP, called the acquisition "an exciting move that will allow GVP to develop top-notch software in-house." Long noted for its hardware, GVP recently entered the software market with the acquisition of the distribution rights of *Scala*, a professional titling/presentation software package. Now with Lake Forest on board, GVP will add *The Disk Mechanic*, *A.D.A.P.T. the 680x0 Assembler* and *Macro Paint* to its growing list of software titles.

Current owners of software formerly published by Lake Forest Logic will receive technical support through GVP's BBS (215-337-5815) or via the tech support phone lines (215-337-8770).

Stand-alone Video Toaster system

At the National Association of Broadcasters show, NewTek launched a stand-alone Video Toaster system. The new \$3,995 (U.S.) Video Toaster is a complete solution for broadcast quality video production at a revolutionary price. "Our original plug-in card version of the Toaster required that the user be familiar with computers", comments

Continued on p6

UPDATE COLUMN

Well here another month has gone by and I hope many of you took advantage of the sales I mentioned to make enormous savings. Well, in fact I know many of you did by the number of Warranty Cards that have been sent in. On that point, can I please ask you to only send in one Warranty Card as otherwise you are simply wasting postage and the first Warranty Card is sufficient to get you on to the Update Club and give you a lifetime warranty on all your Packtronics software.

Well, we have released DEMO MAKER and it was an instant success, we actually sold out completely at the Amiga Show. We are getting some more in and we are going to bundle these with a new Companion Disk which has now also been released for the DEMO MAKER.

You may recall I told you the bad news about the Cameron Scanners. Well the good news is we have now released a GOLDEN IMAGE HAND SCANNER at only \$399. This is an excellent black & white hand scanner for graphics. It is 100-400 d.p.i. and the software can convert into 16 grey scale.

Probably the biggest news of all is the release of the AMOS COMPILER. I know that it has been promised for a long time but at last it is here. I once said that without AMOS you really haven't got an Amiga and now I must say that without the compiler you really haven't got AMOS!

NEW GAMES

Great new games just released for the Amiga include: NINJA RABBITS, ED THE DUCK, ZARATHRUSTA and budget games such as HYPERFORCE, AQUANAUT, STAR GOOSE, BAD COMPANY, etc. etc. from only \$12.95. On C-64 we have new budget beaters @ \$7.95, including such horrors as FRANKENSTEIN, WOLFGAN, JACK THE RIPPER, and many others and a whole pile of \$9.95 brilliant games, including ROGUE TROOPER, NINJA RABBITS, and ARDOK THE BARBARIAN.

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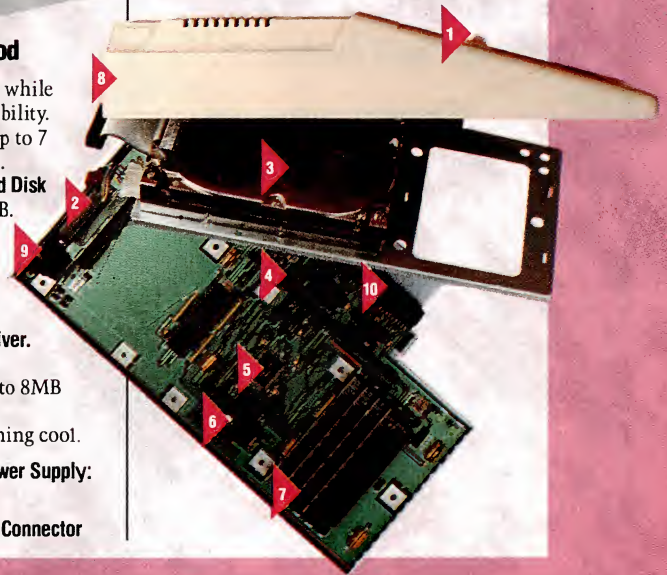
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Paul Montgomery, NewTek's Vice President, "This new Video Toaster system in the flagship product we've been working towards.

"It makes the complete Toaster system price less expensive and opens up many new channels of distribution."

The Video Toaster system will begin shipping from NewTek to resellers in June. At the launch, over 25 software and hardware developers are announcing product for the new Video Toaster platform.

"We are excited by the flood of high quality developers that are working on innovative products for the Video Toaster", says Mark Randall, Newtek's Director of Marketing. "The Video Toaster is now clearly the standard for desktop video production." The Toaster is already in use at television networks, local affiliate stations, video production houses, and cable companies.

The Video Toaster is the world's first desktop television studio. It allows virtually anyone to produce videos that have the effects and graphics quality of network television. The Video Toaster's unprecedented price of \$3,995 (U.S.) is made possible by new technology invented at NewTek and incorporated into special custom chips that perform real-time video manipulation. Over four years in development, the Video Toaster is a complete system including easy-to-use software for video switching, digital video effects, character generation, colour processing, 3D animation, and paint graphics.

Although demonstrated at the recent World of Commodore Show in Sydney, the toaster is still not available in PAL format and no plans appear to exist for such a device in the near future.

Virtual Reality Laboratories Inc release Distant Suns 4

Distant Suns 4.0 is comprised of the program disk and two data disks. The minimum program requires one meg and two floppy drives (or a floppy and hard drive) to use. List price is \$99.95 (U.S.). *Distant Suns 4.0* is not copy protected, and it will automatically determine whether it is running on a PAL or NTSC machine and display correctly. VRLI will continue to sell and support the *Distant Suns 3.0* version which runs in 512K in the NTSC version (one meg PAL) at a reduced list price of \$49.95 (U.S.) while supplies last.

Distant Suns has undergone its most comprehensive upgrade since its initial release in 1987 as *Galileo* version 1.0. Here is a partial listing of some of its new features.

These features include AREXX support which could be used for telescope control as well as the ability to create ANIM files. Allows you to save and restore multiple user configurations and has multiple resolution support (interlaced, overscan). Double buffered screens together with toned down colours for easier long session viewing, and the ability to put your eyepoint off the earth and look back at our solar system all the way out to 400 astronomical units (40 AU = distance of Pluto's orbit). This feature allows display of orbits, hairline grid representing the plane of the ecliptic, object and orbit variations above or below the ecliptic.

Features also comets and asteroids and the ability to define user objects orbiting the sun. Useful for new comets, asteroids, and deep space craft solar system trajectories (sorry, compound trajectories are not available, although the user can treat trajectory changes as a new object), and includes a user definable search list.

More Stars! Basic program expanded from 2,200 stars to 4,200 stars. With soon to be available expansion disks you can expand your star data to 255,000 stars.

Chip-RAM PLUS

MAST now has a 2MB Chip RAM board for the Amiga 2000 and the Amiga 500. Chip-RAM PLUS is user installable and upgrades an Amiga 500 or A2000 to the same amount of graphics memory as the Amiga 3000..

Workbench 2.0 automatically recognises this memory, meaning that it is accessible by application software. Chip-RAM PLUS is also an ideal companion for owners of Colorburst who will benefit from the extra graphics RAM.

Chip-RAM PLUS includes the new Super Fat Agnus chip that is used in the A3000, and also includes 2 megabytes of memory on board. The memory chips used are 4 megabit CMOS chips, and with only 4 chips it provides a very low power unit. This memory replaces any chip memory already in the computer. A significant power saving will be obtained if the original chip memory on the motherboard is disabled or removed.

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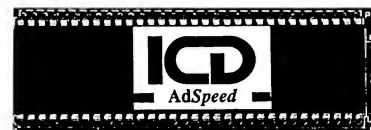
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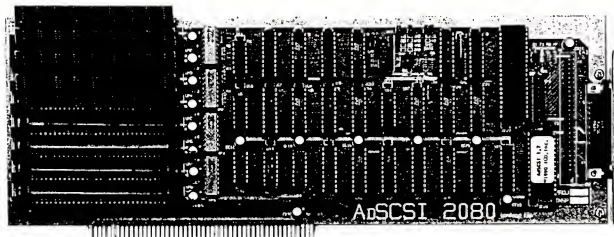
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What's a Wordworth Anyway?

Just when you thought you were all WYSIWYG'ed out, a new entry to the fray of heavy duty graphic interfaces has turned up. Wordworth looks great for a first release. **Andrew Farrell**, wordprocessing guru, examines the package.

Between *ProWrite*, *Pen Pal* and *Excellence* it looked like the WYSIWYG market had stabilised. Not so. Although offering some fine features, the big three previously available WYSIWYG wordprocessors still compromised on key features. Enter *Wordworth*. A slick new package which for a version 1.0 release stands up well to all the current choices.

Inside the bookshelf box you'll find three disks, a 266 page ring-bound manual and quick-reference card. A function key guide on a sticker may be cut out and placed near the relevant keys. Installation is a snack. There are no external assigns to worry about.

Up and running

On screen, *Wordworth* looks every bit like a true Workbench 2.0 application. System menus, including pull down functions and requestors, all sport some sort of fancy font. This help makes things more readable, however on occasion the menus seemed to become a little confused with some letters overlapping others.

The display may be interlaced if you desire (flicker fixer recommended) and the number of colours can be changed even whilst you're in the program. There are a number of preset palettes too. Overall, I found I was able to make *Wordworth* look just the way I wanted - well, almost.

Like all of these programs, the toughest thing always seems to be finding a font that not only looks good and is readable on the screen but also prints correctly. As usual, I found the default fonts for correct handling of in-built printer fonts to be too small for continuous on screen use. So, I reverted to using 15 point Times for entering text, and then once it was corrected, spell-checked and edited, reverting back to the propor-

tionally correct font. This is a fairly simple process.

Incidentally, *Wordworth* can be adjusted to correctly display WYSIWYG representations of both 60 and 80 DPI output. It will not properly handle laserjet as yet, although there is some support in this area. They tell us postscript output is also on the way. I wait in earnest. New Horizons are also busy adding postscript to *ProWrite 3.0*. *Excellence* enjoys this feature now, but it is rather tricky to get working reliably.

Editing and formatting

Editing speed is great as are the range of editing keys and functions. *Wordworth* actually supports the Home, End, PgUp and PgDn keys too. There are icons to handle such things as line spacing, justification, font and colour selection, margins and tabs. There is a very strong set of keyboard short-cuts. Many of the pull-down menus cause pop-up radio button menus to appear. A very pleasing interface which you can zoom around after just a few minutes exploration.

Extensive control over page formatting is offered including all margins, headers and footers. There is no footnote facility. Paragraphs can be formatted individually including justification, indentation, TABs, line spacing and space before and after a paragraph. Certainly a lot more fancy than most wordprocessors and even up there with some of the better desktop publishing programs. There is no support for multiple columns at the moment - this too is a planned addition in a coming release.

Wordworth supports standard Amiga typefaces as well as colour fonts for which you'll need the *ColourFonts* program included with *Deluxe Paint*. The main menu to select a font is a pop up re-

questor which shows the font name, drawer, point size and tracking (character spacing). You can enter any point size, however only Workbench 2.0 will guarantee a smooth rendition of the typeface - earlier versions are limited to those sizes available or chunky versions of scaled sizes. (Full support for outline fonts has been added to Workbench 2.0 which is now ready to ship!) Styles available include the usual bold, italic and underline. There is also support for super and subscript.

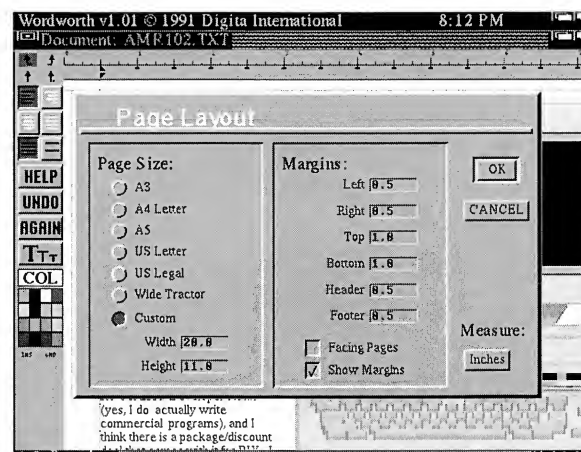
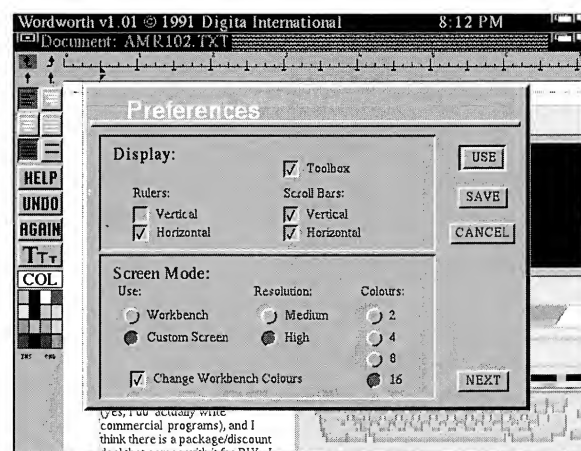
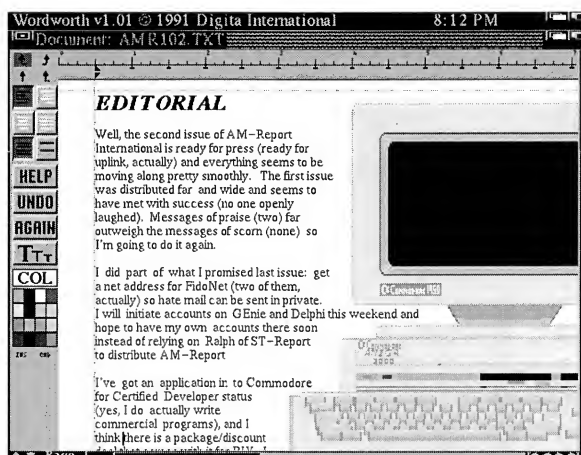
Graphics

When it comes to including IFF images, *Wordworth* scores very well. The place picture option will import any standard Amiga IFF graphic in any resolution or size from 2 to 64 colours, HAM or Extra Half Brite. HAM images are converted to 64 colour Extra Half Brite. The current palette can be altered to reflect the graphics palette (colours 4-16 of the current palette are adjusted to reflect the most used colours in the graphic), or the palette of the imported graphic can be adjusted to best match the current settings. *Wordworth* handles this process quiet well, be it with a short delay whilst all the necessary calculations take place.

Text can be made to flow around the graphic to the left or right. If colour 0 is selected to be transparent you can also have contoured text flow around the image. You can resize the image using simple drag handles. Holding the shift key as you drag will maintain the correct aspect ratio. A double click on the image brings up a useful picture options menu much like any good desktop publishing program.

Output

Apart from the standard NLQ or draft mode, graphic mode provides support for the Amiga fonts and graphics. *Wordworth* comes with special fonts to correctly represent the NLQ fonts on screen in true WYSIWYG form. There is also a special output mode known as Ultraprint. This effectively doubles or quadruples



the screen resolution which is dumped to the printer in a graphic print mode.

The catch is any font used must be available in either double or quadruple size to use this option. For example an 8 point Times font printed in Ultraprint High (double) would require Times 16 point to be available before the document could print. In Ultraprint Super

(Quadruple) you would need Times 32 point. The result of this output mode is impressive, but the printing is considerably slower. Not a bad alternative to a similar feature provided by *Kindwords 2.0*.

NLQ and Amiga graphics may be mixed using a special two pass function. The output menu helps with all this by giving full control over the usual preference settings which affect printer output including the printer driver. Changes made in the program are reflected in preferences normal system configuration file.

"Smart" Features

Wordworth has a number of features which overcome several long standing problems with these types of wordprocessors. If this is an upgrade you're probably first concerned with converting your old format files across to *Wordworth*. This is handled elegantly by the document format menu which offers compactability with ASCII, *ProWrite*, *WordPerfect*, IFF Text (such as *Kindwords*) and *Protext*.

Another favourite *Wordworth* overcomes is the fact that some printers are only 60 DPI. This normally means you can look forward to 1/4 of the screen not printing correctly if at all. However, *Wordworth* offers a choice between print resolutions of 60 or 80 DPI and adjusts the screen display accordingly. I wonder how they will handle 300 DPI

printers correctly.

Occasional system crashes can be thwarted with *Wordworth's* auto-save option. You can set the amount of time between saves. The save function creates a backup before replacing the existing file enabling you to revert back to an earlier version of your file.

The William Collins spelling checker contains 116,000 words including 26,000

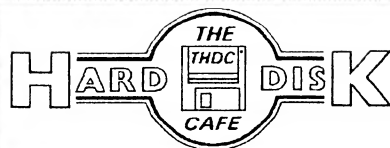
words from the Marriam-Webster legal and medical supplements. However, it's very easy to add words to the dictionary. When a word is queried you have the option to edit it, replace it from the near-match listing of words, ignore it or add the word to the user dictionary. This dictionary is automatically updated and reloaded each time you run *Wordworth*. The spell-checker can work as you type - although this requires a hard disk or copying the dictionary to RAM. Spelling suggestions are based on both phonetic spellings and common mis-spellings. I found the dictionary was a very useful function, especially once it contained my commonly used computer terms.

There is also a good thesaurus and document analysis. You can also create a glossary of commonly used terms or phrases which are then quickly accessible from a pop up menu. *Wordworth* handles hyphenation quite well. It even has a smart speech option to read portions of text or read as you type. There's full control over the synthesiser. Under *Workbench 2.0* it sound great!

Conclusion

Wordworth is a functional well thought out package that will no doubt become the standard by which others are judged. Although suffering from the usual confusing WYSIWYG problems of font sizes and line spacing, once you have correctly configured your page, fonts and printer preferences all should be well. The documentation is of a very high standard. If all the promised additions arrive as scheduled *Wordworth* will go on to stake a large claim in the high end Amiga wordprocessing market. Top points for look and feel. A very useful spell checker, combined with a number of smart features make this one a desirable alternative to *Excellence* or *Pen Pal*.

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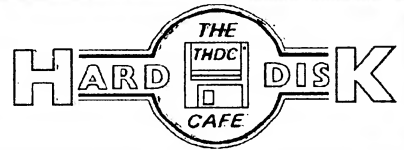
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Getting into Desktop Video with *Alter Image*

by George Kimpton

No longer does the video enthusiast have to dream about the wondrous masterpieces possible if only you could afford a genlock. In the last couple of years we have seen three which have cost less than \$1000.

First there was Dave Thompson's Ausgen at around \$600 and more recently I reviewed the ROCGEN which currently retails at less than \$300. Now we have the Alter Image Genlock by The Disk Company retailing at around \$749. Incidentally Matrix inform me that they have fixed the problems with the Roc-Gen I found - so it should now represent a great buy.

Installation

Have you ever got caught up in that party game where you unwrap the parcel layer by layer and eventually find that the prize is one tenth the size of the original package. Well that is what I felt like. I was presented with this large package which conjured up visions of lots of goodies inside and instead I found lots of wasted space and packing and eventually the promised items.

The actual genlock is only 120 x 56 x 38 mm with a 23 pin connector at each end, to suit your monitor, and two RCA connectors for video in and out. A three way manual toggle switch is used to se-

lect the monitor viewing modes (video only, graphics only and mixed). A very compact unit indeed but I worry about its weight hanging off the monitor output connector. I would suggest some support under it to protect the motherboard connections.

No longer does the video enthusiast have to dream about the wondrous masterpieces possible if only you could afford a genlock. In the last couple of years we have seen three which have cost less than \$1000!

Apart from the genlock itself there are two program disks (*AlterImage* and *Fusion Paint*), one font and one clip art disk and two manuals. A rather thin booklet tells you how to connect up the genlock system. The other is the operating manual which is fairly comprehensive with tutorials to get you going both with the genlock and with *Fusion Paint* which is included in the package to help in art work.

In addition, and I must congratulate the Disk Company on the excellent 15 minute instructional video on genlocking to supplement the manuals. It takes you

through setting up the hardware and producing titling step by step. It's a pity more software houses don't do this to help you learn how to use some of the more complex programs on the market today.

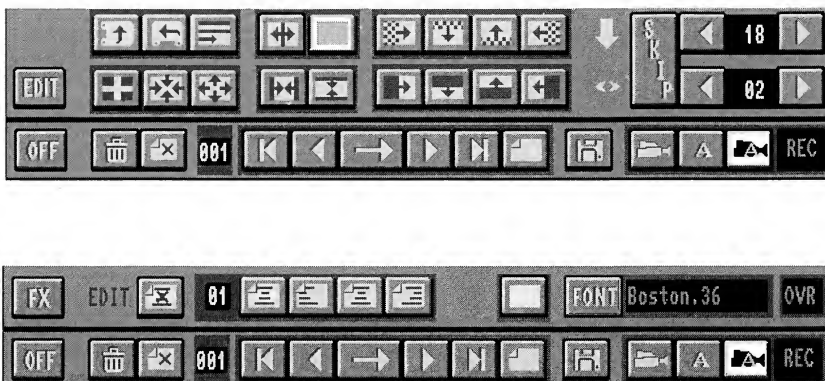
If videos like these were available for viewing before buying there may be less dissatisfied customers as they would know what they were getting. There may also be less piracy if people already knew the program would not do what they wanted.

The included *Alter Image* program is intended for use with the genlock supplied but just for curiosity I tested some other titling programs with this genlock quite successfully. The only problem I did find was an instability of the screen display on my A2500 without any video input but this is fairly normal when working with genlocks without any sync to lock onto.

The *Alter Image* program is self booting and can be used from the floppy or be installed on a hard disk by clicking on an install icon after a normal boot and then adding two lines to the startup sequence. I may be getting into hot water here but, while the *Alter Image* genlock is said to work with all versions of Amiga, there may be some reservations in certain configurations with software mode switching but more about this later.

It is a fairly basic program which is easy to use, just point and click on the tool box or control panel as it is called at the bottom of the screen and away you go. The tool icons are fairly standard and easy to recognised after a short familiarisation run through them and the control panel is toggled with a click of the right mouse button.

On opening you are told to expect some instability of the screen until the video source is started up and running. In actual fact, normal practice in video genlocking requires you to first start up the



video sync source then the genlock before starting the Amiga to allow the Amiga to lock on to the video sync. This is always a good routine to get into.

Operation

To enter your text you are given the choice of a number of fonts specially made for Alter Image. No other fonts will be accepted which is rather limiting. The fonts you select are loaded into RAM and remain there until removed. It is possible to select any one of eight adjustable colours for the fonts but you can not play around with shadows, outlines etc. as these are fixed for the font you select.

Centre, left or right justification of text in each line is set by clicking on the appropriate button. If want another page or you are not happy with the old one it is just a matter of clicking a button again. As I said very easy to use every thing is just a matter of clicking on the mouse button except for typing in the text.

The Graphics Box Button allows you to create many graphic elements such as boxes, rules, frames, colour backgrounds and combinations of all these.

It is possible to use this facility to create a contrasting colour box as a background to your text but the box is constrained to 200 lines vertically. This constraint applies to all graphics that you draw or import. One very handy feature though is the Delete Graphics Button which allows you to remove the graphic whilst leaving the text intact if you want to change your mind.

The graphics can be imported from the included *Fusion Paint* or any other Paint program provided the format is Hi-Res and IFF, but not HAM. Also, remember the 200 line constraint when producing graphics.

Each page can be given its own transition by selecting the FX button which opens up another control panel on which are displayed the various transitions. Horizontal and vertical scrolls are provided along with "Teletype" which lays the letters down, left to right, just as you would read them.

Other transitions allow wipes, cross reveals, shrinking square, expanding square, closing and opening doors, blinds, checkerboard and diagonal

changes to the screen. They are fairly basic but effective, after all this is not intended for use in a professional studio but for home use. The speed and dwell are adjustable for each page to suit your needs. The script which controls the pages you create can be saved to disk for later use.

When you have completed your script you are advised to add a blank page at the end for control purposes. I found I needed two blanks otherwise I was suddenly confronted with my control panel back on screen when there should have been nothing but video.

So, you have created your tiling or credits and now you want to do something with them. Well it is possible to view individual pages as you did when setting them up. The current page number is displayed in the control bar and by using the appropriate buttons you can step through the pages holding on the blank to avoid the return of the control panel.

Problems

Now this could be where I get into trouble but I say it as I see it. The software provides for mouse control of the genlock on any Amiga model as to whether you see just video or Amiga graphics or the combined video and graphics by clicking on the appropriate button on the control panel. This is a very useful feature if you get it to work.

There was no way I could get this to happen on my A2500, I could only switch manually on the genlock itself. I must say here that manual switching was flawless and gave no problems except for the need to keep reaching around the back of my computer to switch modes. In all fairness the problem may be with the configuration of my system.

It was suggested that the software did not like my hard disk (GVP controller and Quantum Drive) but switching out the hard disk brought no changes. Each time I attempted to view only video or



Amiga graphics the control panel kept flickering on and off. The mixed display was always perfect but not the other modes. I even switched out the accelerator without any improvement.

I am reliably informed that the system does work properly on Amiga 500s around which I suspect it was designed judging by the handbook illustrations. It is worth noting here that the manual does indicate the possibility of a problem with A590 hard drives but gives a fix to get around the problem. It is also quite possible that it will work well on other Amigas but make sure it works on your configuration before buying.

Generally though it is a good system for the home video enthusiast. It will give quite effective titles with or without graphics. I would like to see the ability to use fonts other than the Alter Image ones and it would be nice to be able to fade the graphics in or out. Remember too that the genlock itself can be used with other titling programs with manual switching.

Fusion Paint

Fusion Paint is quite a versatile program but not in the same class as *DPaint* or *DigiPaint*. However it does have some different features and it is adequate for producing simple but effective graphics for use in titling home videos. It certainly is not as user friendly to the first time user as is *DPaint*.

The icons in the tool panel do not always indicate clearly what they are used for. In addition many functions only pop up as a secondary toolbox after you have clicked on and selected a main function tool. As an example, clicking on the

freehand drawing icons opens a secondary toolbox which allows you to select from freehand, straight line and straight line horizontal or vertical constrained only.

The boxes and circle tools have similar multiple selections so the problem initially is to find where the various functions hide. I know it took me half an hour to find out how to clear the screen and then I only found it by reading the handbook. Still I suppose that is what we are supposed to do but how many of us read the manual first.

All the usual tools are there, freehand, boxes, circles, airbrush, brush (cuts), cut (for clip art), fill, effects (brush selection and manipulation), text, fonts, magnify, erase, palette and printer. As I said multiple secondary level selections become available on selection of these tools.

It does have some unusual features. Initial screen size is 600 x 400, probably to suit the genlock, and thus you have portions of the screen outside the view-

ing area. Clicking F10 removes the toolbox but you cannot draw without it. Overscan is also supported but you cannot reach drawing tools to select them. The arrow keys are used to scroll the screen around and the return key to centre the page.

Another unusual feature is the ability to magnify the immediate cursor area by holding down the right mouse button. The cursor immediately slows down and a magnified picture of the working area appears below the toolbox. Using the shift key during rubber band drawing of lines, circles, ellipses or curves allows them to be dragged to selected new locations once sized.

The undo command is not limited to a single toggle effect as in *DPaint* and others, it can step back as many levels as the memory buffer will permit. Unfortunately it is one way only, when they are gone they are gone. A feature called Quicksave is used to bypass the usual save requesters. It updates the picture file in a similar way to the hot keys in word

processing which update the active file.

Another useful feature is the ability to select which background colour is transparent when saving a picture. It can be any colour and not necessarily the first colour in the palette as is usual. It is also possible to create icons and alternate icons (Icons that change on selection) and save them as such for future use. A Power Borders facility is also available which allows the creation of borders for the screen using pre-saved patterns.

ColorFonts and colour cycling are supported but the program requires an ARP Library to operate successfully.

Generally it is a good paint program, just different and perhaps not so user friendly as we have come to expect. For anyone still wanting that something extra special in graphics you will still need *DPaint* or one of the others. For the home movie buff however it may give all they need especially as it comes as part of the package. □

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RAMlink

Interface for the C64/128

After many months of promises, CMD have finally released RAMlink, a multi function compatibility interface for the C64/128. So what exactly is a "multi function compatibility interface" ?

First and foremost it is a device that enables those of us that have a RAM expander such as GEORam, or Commodore's 1764/1750 REU to finally make use of this extra memory. It can also be considered as an REU in its own right. For those of us that are fortunate enough to own a CMD hard drive it gives us the ability to use the higher speed parallel data transfer.

Ever since the CMD hard drives were released there has been a "minor war" between CMD owners and Lt.Kernal hard drive owners. Both hard drives have their advantages and of course their disadvantages, the main point in contention appears to be speed. The Lt.Kernal which uses a parallel connection as standard is a lot faster than the CMD which uses a serial interface. As an example a 202 block program will load on the Lt.Kernal in just under two seconds, whereas it takes about 8 seconds to load the same program from a CMD HD with its serial interface. When using a parallel cable between the RAMlink and the CMD HD the speeds are very comparable. The same 202 block program loads in less than two seconds.

This is all very well, but quite frankly because programs load so fast anyway (compared to a 1541 drive with no fast loader) I find that the few second time difference is negligible. I could and would not recommend that a CMD HD owner buy the RAMlink purely for the parallel interface.

Using Georam

The next thing I will tackle is RAMlink's ability to make use of GEORAM and the 1764/1750 REU's. I have no doubt that there are many of us that have a RAM expander of some sort, and we would all agree that for the amount of money that it has cost us to purchase the-

se units they get very little use. GeoRAM owners are probably the worst affected since these REU's can only be used with GEOS. 1764/50 owners are slightly better off in that for the C64 there are about four programs that support their use, and C128 owners are even more better off in that there are maybe a dozen or so programs that we can use.

OK so I admit that 1764/50 owners can use RAMDOS and use the REU as a ramdrive, but I am sure that most of you would have to agree this is often more trouble than it is worth, the moment you do a reset or power down all contents of RAM are lost.

The solution is RAMlink. I don't wish to sound like a salesman, but if you own a GEORAM or 1764/50 REU then this unit is a must because without it you will have some rather expensive RAM just sitting around doing nothing. RAMlink is a device that will allow you to use your existing REU in a fully functional manner.

Power Up

Upon initial power up RAMlink will check for any additional memory, either internal or external, and format itself as another disk drive(s). Thereafter you may copy files to this "disk drive" and access them as if they were on a normal floppy disk, with of course the exception of speed.

Loading from RAM is fast. Those of us that have used RAMDOS with our 1750's would be aware of its limitations, namely if the computer crashes (for any reason) and you do a reset then not only do you lose all data stored in RAM, but you have to reload RAMDOS and start again. To make matters worse RAMDOS is usually unsuitable for use with multi-part programs that load subsequent parts from drive #8, and finally those of us with a C128 often have the need to swap between 64 + 128 modes for various reasons, with RAMDOS the data stored under C64 Ramdos isn't accessible from 128 Ramdos and vice-versa. RAMlink

overcomes ALL of these limitations, and more.

Available RAM

As a storage device the RAMlink operates in a very similar manner to CMD's hard drives. It allows any available RAM to be used in several ways and various partition types, as such you can use its entire memory as a normal but large capacity disk drive (approx 2000 blocks free with a 512k REU). Users of Ramdos will notice a reduction in available memory when using RAMlink as RAMlink uses some of the memory for its own operation.

The RAM can also be arranged to emulate the 1541/71/81 disk drives, however due to insufficient memory I have been unable to use the 1581 emulation. You are not limited to a single emulation mode, with enough spare RAM you can mix modes by using various partitions (up to 31 partitions are available). With my limitation of only having 512k of RAM I am able to set up two 1541 partitions and can operate the unit with those programs that support dual drives, or I can simply have different applications on each "drive".

Data stored using RAMlink is what I call "semi-permanent", as long as you keep power to RAMlink the data remains intact. RAMlink has its own power supply and ideally should be plugged into a socket that is permanently turned on.

Its power consumption is minimal, and should you happen to lose this power (either accidentally or simply to transport RAMlink to another location/computer, it has a battery back-up (optional) that will hold the RAM contents from several hours to a day or so, depending on the amount of RAM available. I have removed mains power from my unit on several occasions and have never had any problems with data becoming corrupted.

RAMlink comes with its own Jiffy-Dos routines (and DOS wedge) so those of you without JiffyDos would be able to quite cheaply get fast disk speeds from your 1541 drive simply by installing a new drive Kernal chip. Those of us that already have JiffyDos must Disable it when using RAMlink because it causes some strange problems. The RAMlink Jiffydos works in exactly the same way as the normal JiffyDos, but I have no-

Continued on p24

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ticed that some programs that would not load using "normal" JiffyDos load okay with the RAMlink Version.

Accessing different drives with the JiffyDos routines is a breeze and only requires one or two keypresses (no more messy open commands).

Although RAMlink plugs into the cartridge port it does not tie the port up as it has a feedthru slot so you can still use other cartridges with it. CMD make no claims that all cartridges will work in this manner, but I have tried Swiftlink, Action Replay V and Final Cartridge 3. The only times I seemed to have problems is when I attempt to use the cartridge fastload routines in conjunction with the RAMlink's JiffyDos routines, which I suppose is understandable.

RAMlink is a very sturdy device (no plastic here), it has two toggle switches (badly placed in my opinion) that enable you to disable/enable RAMlink and to control how external RAM is connected (either normal for RAMlink use or direct for use with programs that support the REU in its usual way). It has three membrane type push buttons for RESET, SWAP 8, SWAP 9. The reset is obvious, the swap buttons are a very powerful feature that enables you to swap the RAMlink with either drive 8 or 9 in the same way as the CMD hard-drives. As I program in my review on the hard drive this is possibly one of the most useful features available as it allows the RAMlink (HD) to be used with almost every type of application.

Even if you don't have an REU then you can still use

RAMlink by purchasing it with its own inbuilt memory (or you can add memory in conjunction with an REU). By adding its own memory it is possible to have up to 16 Megs (yes 16 megs) of RAM on a C64, something unheard of until RAMlink came along. I would assume that the internal RAM would work just as well as with an REU.

I would suggest that if you don't already own an REU, but are thinking of getting one, then seriously consider purchasing RAMlink with internal memory instead, as it would be probably give you more value per \$\$\$, however you won't be able to use the RAM with programs written with the 1750 in mind.

Compatibility

The only compatibility problems that I've had are with some copy protected programs, the RAMlink is as compatible (and functional) as CMD's hard drives. I have found I can use most of my programs without any problem - at the moment the most notable exception is GEOS. RAMlink does not support GEOS without the use of CMD's *Gateway* program (an alternative/improved version of Desktop). At the time I got my RAMlink the *Gateway* program wasn't available, but I understand that it has now been released. I am unsure whether *Gateway* will be supplied with RAMlink as a matter of course, but with my unit I got a registration card entitling me to a copy for the cost of postage, I am currently awaiting its arrival.

RAMlink comes with a single utility disk with programs to customise your preferred settings, make auto boot files etc. The manual is very comprehensive, in fact it is almost a duplicate of the hard drive manual, which is understandable since many of RAMlink's operations are identical to the HD. (This unit could be a "cheap" way for people to actually experience what the CMD HD's are like.)

Summary

In conclusion I would say that this unit is a definite MUST if you have an REU. It would be a worthwhile alternative for those of you contemplating buying an REU. The unit is robust, appears reliable, and truly is a "multi purpose interface" that is packed with features.

Since this unit is a "one of a kind" it is impossible to compare it with other similar devices, but if there was something similar it would be hard to beat RAMlink. Once again congratulations to CMD for delivering yet another great product for the C64.

Dedicated C64/128 and GEOS support is available on the THISTLE DOME BBS (OFF-LINE from 9am-9pm Mon-Fri South Australian time) on (08) 322 276. □

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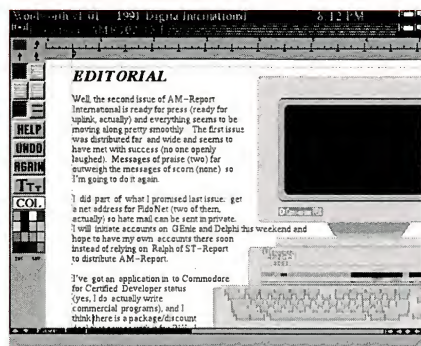
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Keeping Track

Ever had that sinking feeling that you have forgotten something important like a business appointment or an anniversary? **George Kimpton** guides us through a range of programs designed to help you keep track.

How often have you experienced that pregnant silence when someone near and dear says "Darling, do you know what today is?" or the boss threatens to use your head for a drum because you forgot about an important client. The sinking feeling in the pit of your stomach at the approaching disaster can be mind-numbing to say the least.

Younger readers out there will probably wonder what I am on about, but your turn will come soon enough. Our whole life revolves around time and remembering. Unfortunately when you become totally absorbed in whatever you are doing, like us computer nuts, it slips by fast and silently. The enjoyment of the moment can often cloud out the memory of what you should remember to do.

Well there is hope for us yet. Our Editor, with a gleam in his eye, suggested that I do a comparison of Diary programs. I'm still wondering whether it was a subtle hint to not be so late with my deadlines for the magazine in future.

Let's see what we can find. To my knowledge there are two commercial programs available, they are *Who! What! When! Where!* and *Day By Day*. A perusal of the Fish Disks also brought to light three PD programs, they are *Nag*, *Badger* and *DTC*.

There will also be a new one from Mike (TUP) Hansel of *KDV* (the virus

killer) fame on the market soon and it looks good so keep a eye open for it. Looking at an early version it would appear to be more versatile and more of a database than *Who! What! When! Where!*

Each approaches the problem in a different way but the basic plan is to flash up a message on the screen and find a way to remind you of important happenings. Some offer flashing lights, others include sound effects or the voice of Amiga. Speaking of *NAG*, one wonders whether the developer had a nagging mother-in-law as he clearly states that unlike your mother-in-law it can be silenced. Well let's look at the commercials first and then compare them to the cheaper Public Domain offerings.

Day By Day

Publisher: Digita

From: Pactionics 02 748 4700

RRP \$59.95

Day-by-Day comes as a single disk (V1.2) with no special system requirements, although I found the program is best used with a hard disk as is the case with all these diaries.

You are provided with full calendar/diary/planner facilities. Messages can be grouped in categories such as 'Urgent', 'Overdue' or 'Club Meetings' for easy access. You can select to have

advance warning of a single appointment or event. You may also have repetitive reminders of regular events. Day, week and month planner facilities with a pictorial chart summary at a glance. A search facility is also provided for those forgotten anniversaries or appointments. No sign of the demo program mentioned in the manual, which incidentally does cover program operation adequately.

The program opens with a request to confirm date which will be correct with a battery backup clock. Next comes 'Urgent', 'Overdue' then 'This Week' message category screens followed by the Main Menu where it is possible to set up and edit messages. Operation of this screen is by either mouse or hotkey which automatically moves to the appropriate screen.

Here you can choose a number of ways to find, categorise, modify or enter the messages already existing or new messages. You can also select various information options such as appointment duration, times and/or range (Daily/Weekly) to make it easier to assess free time etc.

The planners are good, laying out the day graphically so that everything can be seen at a glance. The monthly planner unfortunately only shows full or half days. Lesser times are blank and, misleadingly, apparently non-existent. Another quirk of the monthly planner is that on a typical calendar display the morning indicator is placed above the date with the afternoon below. It can be confusing at first glance as to which day the morning's appointment applies to.

The message display shows Date, Time, Afternoon or Morning and Mes-

Who! What! When! Where!

Who! What! When! Where!

sage. Provision is made to Update, Add, Delete, Move, Change Categories or Exit.

Quite a useful program - no information on hard disk installation. This program does not automatically remind you of appointments, but must be deliberately accessed by the operator each time. For those in the know it may be possible to modify the startup sequence to automatically bring up the first screen on boot up.

Who! What! When! Where!

Publisher: Blue Ribbon Bakery

From: Dataflow 02 331 6153

RRP \$79.95

A very useful little program that is now residing on my hard disk. It is both a reminder, a diary and a database. In the database it contains names, addresses, phone numbers, grouping data (clubs, interests, etc.) and notes on the person or company. It also has an alarm clock facility that uses selected sounds and/or a voice message to wake you up.

On opening, the first database screen pops up with a brief listing down the side of people, clients, companies etc. A click on a name brings that data screen to the front. From here it is possible to check appointments, set an alarm clock, print out address labels or any other information, dial up the person if you have a modem connected, check the calendar, arrange appointment reminders and frequency etc.

It is also possible to set up reminders for appointments or things to do not related to the database. Provision is made for more than one person to share the database and reminders, with each person "owning" and accessing his or her database. Security is by password if you wish and you can choose to share data or not as you please with other users.

Operation is by mouse. First time installation is simple, click on the Ikon and answer the questions. The appropriate files are installed and the startup sequence is modified to make startup automatic. Nothing could be easier.

Pros and cons: It does automatically provide a visual and sound reminder of appointments or things to do on boot up but once only. However it will not remind you of what you should have done yesterday when you did not boot up. To find this you have to search the calendar or appointment lists.

Clicking on a date on the calendar will bring up the appointments for that day for checking or modification. Old appointments are not lost unless the update command is used to clear them.

The clock alarm can be either a spoken message (internal "Say" program) or one of several included sounds or a digitised sound of your choice. The visual prompt usually displays some pithy comment.

The database screen could be larger allowing more readable data space. Currently as you type beyond around 30 characters in a field the text scrolls off screen, making it difficult to read the

Continued on p32

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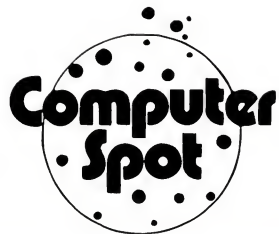
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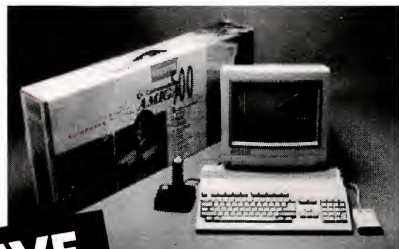


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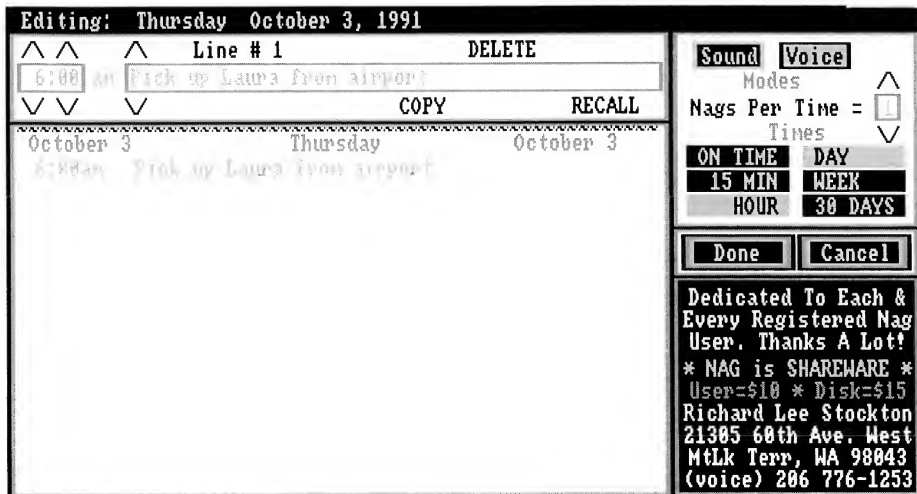
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Nag

data later without using cursor keys. Printing out data would get around this. Auto dialing of numbers from the database could be useful too.

Public Domain Programs

NAG. V1.6. Fish Disk 161

An endearing Shareware program that provides both visual and audible reminders for current items after boot up with a visual reminder only on boot up for missed events. The voice option is the internal "Say" program and speaks the message you type in. Once triggered it repeats at 30 second intervals until you acknowledge, hence the name *Nag*.

Installation is automatic but it is necessary to rename the year files which will contain your messages and special reminders such as anniversaries, bankcard payments etc. The two one year files supplied are out of date but it is just a matter of renaming them to 1991 and 1992, dumping unwanted data, and entering your own data to work them OK. If you don't update the year names it will tell you it can't find the file and sulk.

It is not a database as is just a diary, organiser and reminder. It does however have more room for messages and does automatically remind you of missed reminders on boot up and it's cheap. The main or message screen contains a calendar and edit, print and search facilities. It also allows you to shrink *Nag* to an Icon when finished for later easy access as necessary.

Clicking on a calendar date and then edit brings up the edit screen and allows entry, addition or modification of messages, selection of reminder times and whether to use voice or sound. Reminders can be on time, quarter hour, hourly, daily, weekly and up to 30 days in advance. The sound file can include up to 15k of a sound sample of your own choice.

A very useful program with an adequate text file for setting up and operating. It is currently running in background mode with *Who! What! When! Where!* to make sure I am not late with this article. Andrew please note, I shall not be late again.

Badger Fish Disk 365

One can easily understand why a developer of software hopes and certainly deserves to receive some reward for his or her labours, but Mr Kerber (the developer) seems paranoid about it with this shareware program. The program is good and relatively easy to use but we are constantly reminded to post in our contribution or else the program will self destruct shortly taking all data with it. Not exactly guaranteed to inspire confidence.

However, threats aside, the program is easily installed by Icon dragging but requires a small alteration to the startup sequence for automatic data checks on boot up. This alteration sets up the various options for *Badger* such as checking data every time you boot up or only once a day, colour options, help facilities and text attributes. On boot up relevant ap-

pointments are displayed full screen. Text file instructions for setting up and operation are a bit vague.

Operation for entry, search or edit etc. are by keyboard using either menu numbers or hotkey equivalents. Advance warnings can be up to 45 days. Repeat reminders can also be organised on a weekly or monthly basis. New events can be added, others searched for and information printed out as required. One unusual application is the ability to keep track of a person's age each birthday providing a reference date is given.

Reminders are visual only on boot up.

DTC (DeskTop Calendar) Fish disk 335

This is pure public domain software and obviously a very early version. Still if someone is looking for a small but useful diary program that works this may suit. It does however require you to remember the various keys that control functions as it is fully keyboard controlled. You must also consciously access the program to be reminded of appointments.

Information is sketchy on installation and a little bit of head scratching is necessary to get it up and running. Definitely one for hackers. Once up though it only requires keying the appropriate letter to bring up charts of appointments for day, week or month. Reminders are visual only. It will find free half hours for special activities and will show a listing of your free times as distinct from busy to allow easy reorganisation of your activities.

Appointments can be transferred to new times easily and groups of appointments can be moved en masse to new dates and times. The help facility presents a screen of the various instructions and the appropriate hotkeys. A useful but basic program.

Conclusion

My pick of the programs are *Who! What! When! Where!*, and *Nag*. both are easy to set up and use. Both have automatic visual and sound reminders and *Who! What! When! Where!* has a database with address label printout, auto phone dialling and alarm clock but *Nag* just won't let you forget. □



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In the July issue of ACAR we printed a picture on page 14 captioned GVP Hardcard. This picture was actually of the Flash 2000 from MAST.

The Flash 2000 is a combination 8/16 bit SCSI interface and 8 Mb RAM expansion card. Designed for the Amiga 2000 and 2500, this board provides all of your memory and/or hard disk/SCSI requirements on a single card, at an unprecedented low price.

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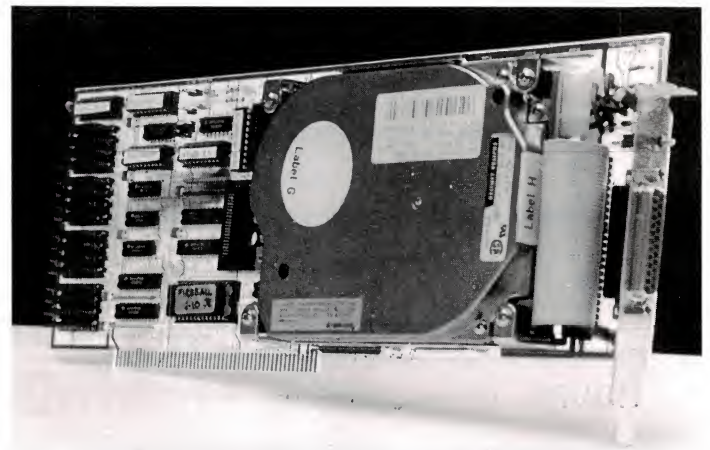
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Things to do with words

by Anne Glover

Kids can do lots of things with words. For instance, they can fish them out of their alphabet soup before letting them slop onto the tablecloth. So proud of their discovery, they don't seem to realise that the rest of the family is actually eating their food. They mangle and mutilate the language, they play and joke with it as they become competent and literate. Everyday life with its street signs, books and TV programs will get them started and there are a rapidly expanding number of computer programs trying to help them on their way.

The aptly named *Things To Do With Words* is one such program. It has three games that are easy for young children to use and is designed for children aged between 5 and 12 years. According to the literature, a child of 7 years or older should be able to use it on their own. This program is produced by the people who developed *Puzzle Book 1* and 2.

Things To Do With Words is not one of the better products on the market, it is lacking in animation and excitement. Unless this program is a child's first exposure to the fascinating word of computers it is unlikely to achieve its aims, simply because it is not very interesting. Sure, cute little Buddy Bookbug pops up every now and again but he is really peripheral to the games.

The three games, or rather exercises, use pretty much a text book approach to word development skills. The range of possible techniques that can be used with a computer have not been exploited.

The first exercise, Anagrams, involves unscrambling a word so Buddy Bookbug will cheer for you. The screen is pretty drab, with a basically black background and coloured text. Students need to click on the centre of the square with the chosen letter as they spell the unscrambled word. Don't click off centre or the computer will ignore you, there is not enough margin for error in this one.

The levels of difficulty to be selected from are wide, so this activity does span the age range indicated (5-12 years); but I believe it is the only activity in the program that does cover that range of ages. It's not good enough to throw in one ac-

tivity that may suit some 5 year olds and then label the whole package as suitable for 5-12 year olds. This one is more suitable for 7-12 year olds.

The second game requires the child to unscramble sentences. They will need to be able to read, and read fairly well to be able to work on this one by themselves. It also has a few problems: words cannot be undone if you change your mind while unscrambling and the program does not recognise other correct forms of the sentence that is presented.

No predetermined level of difficulty can be set but the manual suggests that young or less able students simply PASS the sentences they are unable to handle. This would be very disruptive and discouraging for these students. They are more likely to have a shot at any answer and then be deflated by obtaining poor results. Conversely, if a pattern of skipping answers is established, they may whizz through the program skipping anything the slightest bit challenging.

Surely a better approach would be to group sentences of a particular level and allow the student to select their level. This is the way most programs handle the problem. Another approach could be, to provide a graded sequence of sentences, to allow children to work to their own level and perhaps skip a few levels along the way. The sentences themselves are not as useful as they could be, many are not using appropriate language.

"Word Hunt", the third and final exercise involves finding as many words as possible from a single word. You select the word from the 27 words presented to you. The student may be required to find 21 words using the letters in the word "GREAT" or 12 from "OCEAN".

This program is a pretty obvious example of plonking some fairly mundane (but useful) exercises onto a comput-

er to harness the novelty value of the computer and enhance the process of learning. That concept is quite acceptable, but so much more can be done.

Things To Do With Words may be of use in the classroom to reinforce the concepts covered and perhaps to inject a little bit of variety into the development of basic language skills. Teachers could use the program as an incentive when students have adequately completed their section of work or it could be used alongside more traditional methods. It does use the lower case letters only and presents the letters on the screen when necessary. Confusion with the upper case keyboard is reduced as a result.

As more and more children become familiar with computers and their wide ranging capabilities, both at home and at school, the place for a program such as this one will all but die off. The computer will no longer be a novelty, and much more will be expected of such software.

A designer with a little bit of imagination in the early stages could have done a lot more with this program.

Conclusion

Three fairly boring word games, contained within fairly dated software. The program is easy to use and 7 year olds could operate it on their own. Two of the three games don't cover the age range indicated. Possible applications include reinforcing classroom activities in an alternative way or filling a gap in language development. Don't expect experienced computer buffs of 7 or 8 years of age to sit still with this one for long, but at least its price won't break the budget. □

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Things To Do With Numbers

by Anne Glover

This program, as the name suggests is produced by the same designers as *Things To Do With Words*. It also has a long way to go before it could be considered to be an indispensable program. To the producers' credit however, they have continued their development and *Puzzle Book 1 & 2* have emerged as more valuable programs.

Once again there are three activities - I wouldn't call them games. The first involves converting analogue time to digital time with the graphics of an analogue clock and a digital watch on the screen. The time is determined in 24 hour format, a useful concept, but fairly limiting in its scope. To be able to turn the clock from 24 hours to 12 hours would increase the flexibility of the program and suit a wider range of age groups.

After "a.m." or "p.m." flashes on the watch for only a few seconds the child is required to input the converted time. A child with a poor concentration span or one that is simply interested in looking at everything will frequently miss this vital piece of information. It may help to train children to be more organized and to follow a sequence of actions. It would be more useful however, to leave the "a.m." or "p.m." on the screen while they are working. This would avoid a great deal of frustration and many discouraging results.

The next activity has Buddy Bookbug searching for his mate Betty within a grid of books. A useful concept with some

reasonable graphics, but once again, things are flashing on and off too quickly, frequently before a child can collect the relevant clues.

Finally, a number game that requires the child to recognise one number as a component of other numbers is presented. For example the child may be asked to put 21 passengers on the train using only the numbers 6 and 3. Again a very specific task and one that may be useful to reinforce this concept in the classroom.

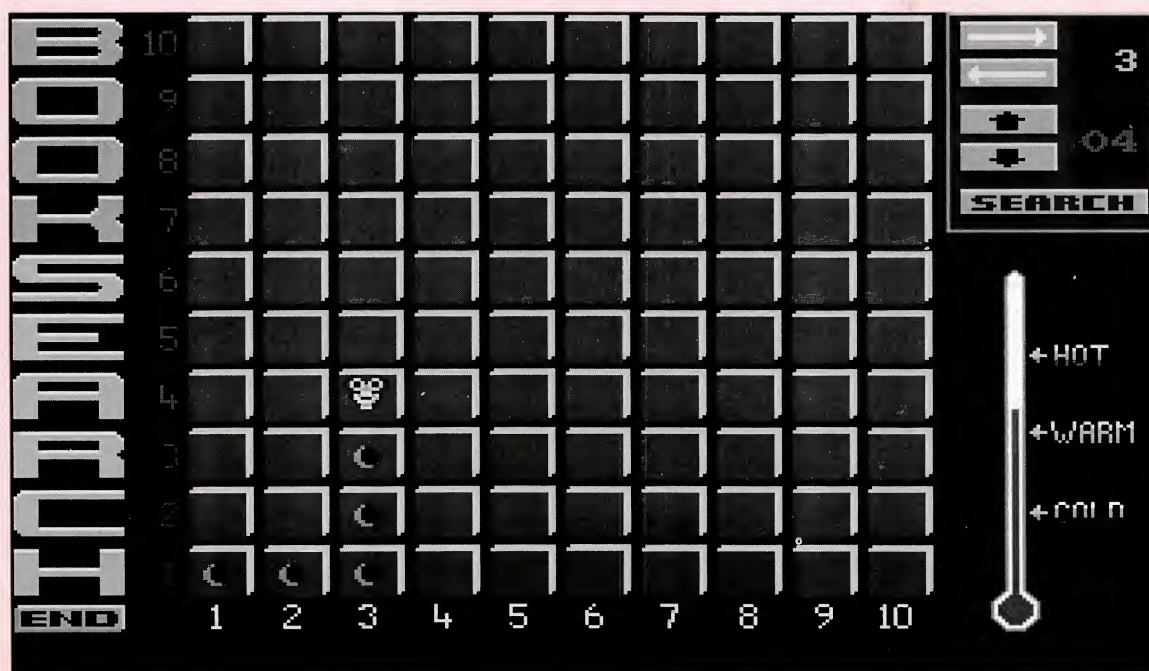
This program has some good points. It doesn't make nasty noises after an unsuccessful attempt at a question and generally the correct answer is presented after three tries. The program is easy to use and seven year olds could probably use it on their own.

Conclusion

This program represents a starting point only - it is not all there yet. The tasks covered are very specific and only three activities are included. I don't believe it adequately spans the 5-12 age group indicated. Nor does it provide the three levels of difficulty indicated on the box in each activity.

There are plenty of better programs around for children in this age group. Ones that are a lot more fun, that cover a greater range of activities and include a more extensive educational component. So do the kids a favour and buy them something else. It may be slightly more expensive, but it will be much more economical in the long run as it will be used more frequently and will be much more likely to achieve the goals you had in mind when purchasing your computer. □

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Thank you!



Coming to grips with the Amiga's CLI A Tutorial for Beginners PART 13

by Andrew Leniart

In the very first instalment of this series, I covered a few of the most commonly used commands in the Cli. Those being CD to change a directory, Dir to view one, List and so on. Back then, I only went into these very briefly and promised to go over some of the less used options of these commands at a later date. This issue, I plan to make good that promise.

Dir

Let's start with DIR. Issued on its own, it simply shows us on screen what the current directory has within it. But there is a lot more to it than that. The command, like most, has various options which are not immediately obvious (cha cha cha!) Most will have used the "Dir opt a" option to get a full geiser at what is on a whole disk. But have a try of this nifty little option..

Dir opt i

What this does is start you with a listing of the very first item in the current directory. This can sometimes be a file or even a whole directory. This is a handy feature because while in this mode of the command, you can do various things.

Let's say you had a disk full of public domain programs and you found you were only ever using a couple of them. By putting that disk in DF1: and doing a Dir opt I on it, you could clean it up quite easily by using DEL one by one.

This is a little hard to visualize so let's do a little bit of experimenting. Make a COPY of any disk and place it in the external drive. Then type Dir DF1: Opt I. Single drive users will first need

to type Dir ? and then switch disks to their copied one when the command arguments come up and then enter Opt I to get the process started.

You should have in front of you something similar to this ...

FileName ? or DirectoryName ?

The Amiga is using the question mark to ask you what it is you want to do to that file or directory. You can Delete it if you wish by simply typing DEL, which is a shorthand way Dos will accept this command when in this mode, and then pressing Return. (Note that if it is a directory, it must be empty before the Amiga will delete it). This is a convenient method of cleaning up a disk looking at each individual file one by one and deciding whether or not you wish to keep it. But there is more ...

Let's say we have gone digging around the PD libraries and come up with a disk full of interesting script files and we wish to explore the disk and at the same time view some of them. Using the Dir Opt I command, we can do so by simply typing a "t" at the question mark prompt. This is just the same as issuing the command "Type Textfile". You can pause the display at any time by pressing a key and then continue with the return key or backspace.

Sometimes when using this option, you may accidentally try to type a file which may look like a text file, but is actually a program. The result will be a screen full of garbage which can look quite alarming to a beginner. But no harm done, just press Ctrl-C and the garbage will stop. Then just continue on where you left off.

At any time when using the i option of Dir, you can move to the next file in line by pressing Return on it's own. To end the whole process, enter a q for quit and it's finished. As with most commands, you can also stop it with another Ctrl-C as well.

So what other little quirks are hidden in this commonly used command? With a little bit of imagination and a sense of daring, we can do other weird and wonderful things. For example, doing a Dir Opt A on a disk cram packed with files in intermingled directories is all fine and well, but you need to do it several times before you can start to remember what and where everything is.

Why not make life easier and create a reference of the really full directories on that disk so that you can look back on it?!. Working through each individual directory on the disk, you can create a hardcopy of the disk's contents via your printer by redirecting the Dir listing to it like so...

Dir > prt:

But shucks, with the way things are going these days with the economy and all, who can afford a printer? No problem, just modify the above command a little by leaving out the colon and create text files instead. Try this to see what I mean ...

Dir > Ram:Prt

Bingo! One you beaut text file sitting in Ram called Prt. And the government can't tax you on it one cent. You don't even need to declare it as an asset on your tax return.

Jokes aside though, you can now view this file at your convenience by TYPEing it in the Cli or better still, use a text viewing utility such as MORE on your Workbench to view it when you want to. If you want to make a permanent record of it, then COPY it to floppy disk.

Just remember that if you are going to do more than one directory of a disk in this way, then don't forget to change the filename for each directory. Naturally, it is possible to save directly to floppy disk right away if you want to. Ie:

Dir > DF1:FileName

Okay, so much of Dir for one issue. Moving right along to another method of viewing files and getting information out of a disk, we come to the LIST command.

Continued on p46

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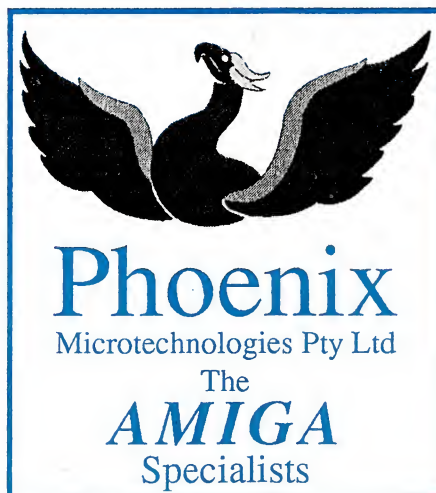
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List

List has a bit of an advantage over Dir in that it gives you far more info on each directory or file that's on your disk. Enter LIST at the Cli prompt and you will get exactly that. A listing of all the files and directories in the current directory. But along with that listing you also get the following good info ...

A Dir after the name if it is a directory and not a file. If it is a file, then you get the file size in bytes instead.

Next column to the right tells you the status of the protection bits which are set or not set on the file or directory respectively. If a protection bit is set, then its letter appears, if it's not set, you get a minus sign instead. A typical file might look like this..

Ed 19564 --p-rwd 28-Mar-89 18:09:58 :Commodore supplied text editor. Not very user friendly..

The eight letters in the protection bits stand for Hidden, Script, Pure, Archived, Readable, Writable, Editable and Deletable in that order.

The next entry tells us the date that the file was installed or last altered. If the file has been installed or altered no more than one day before, then the date is given as Yesterday or Today.

Same thing goes for the time as does for date. It gives you the exact time someone had last fiddled with the file.

Now on my Ed file, I have added the comment that you see written above. Later on, I'll show you how you can put com-

ments onto your own files. These little comments are excellent to jolt one's memory when it's been a while since you used a given program or file on your disks.

List Options

Just like we saved a file in ram with Dir by using the redirection > symbol, we can likewise save a listing to a file by using Lists to option. For example,

List to Ram:FileName

to save to a file in Ram: or similarly,

List to Prt:

to get a hardcopy from that printer you paid some of those hard earned taxes on.

You can also suppress some of the information that List provides if you don't have a need to see it. List NoDates will give a listing of a file or files without the dates. There is actually an option List Dates as well, but why this exists is beyond me as the command defaults to showing the dates anyway. Perhaps when originally designed and coded, it did not have that default (?)

A couple of interesting options are **Since** and **UpTo**. If you type in the command with the following parameters, **List Since 15-Jan-90**

then you would get a listing of files and directories which had been created on or after the 15th of January 1990. Likewise, if you type in,

List UpTo 15-Jan-90

then the Amiga will only display the files and directories created before or on the 15th of January 1990. Useful if you know a file was created on or before a certain date and you wish to quickly find it.

Not to be outdone by the Dir command and in order to try and sway you to using it more often, List is also capable of displaying a disk in much the same way as Dir does. Simply use List Quick.

Another useless option thrown into a command when another command does virtually exactly the same thing (?) I don't know, but I can't think of why anyone would prefer to type List Quick instead of Dir ... I guess life is full of little mysteries and computing has to have its fair share of them as well to complicate issues.

Concluding

I must admit to being a bit slack with this issue and leaving it to the last minute before getting to work on it. A little light on quantity, but I have tried to make it nice and meaty in quality. In any case, I'll make up for it next month with some replies to a few of your letters thrown in for good measure. Till then, keep hammering that keyboard ... □

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The Geos Column

Laser output available

Last month I mentioned a laser printing service to cater for GEOS users. The good news is that it's now up and running. Laser Mode is the name of the bureau, and it's run by Laurent Rinaldi.

All GEOS applications are supported. The results obtainable from *GeoPublish* have to be seen to be believed!

Laurent tells me that to get the best results you should use LaserWriter resident fonts: LW California, LW Roma, LW Burrows and LW Greek. Regular GEOS fonts work fine, but you'll only get output equivalent to the screen resolution. You can of course use italics, bold, outline etc and fonts can be of any size at all.

Prices are a very reasonable \$0.80/page for *GeoWrite* documents using LaserWriter fonts, \$1.00/page for a document not using Laser fonts, *GeoPaint* documents are \$0.80, and *GeoPublish* documents are \$1.00/page. Quantity discounts are available (call for details).

To get your documents printed, send your GEOS disk (single sided if you're a 128 user) to 9/4 Durham Close, North Ryde, NSW 2113. You can also send your files in using a modem providing they've been converted first. If you're after more information you can contact Laurent on (02) 888 3329 or (02) 922 6355.

Gateway

A number of readers have sent me news clips on *Gateway*. *Gateway* is an alternative to the regular GEOS desktop, which I'm told will be more appealing to the tastes of some users. It's smaller and faster. The price is around \$US29.95 or comes bundled with RamLink and RamDrive. Hopefully I'll have some more information on *Gateway* soon.

Chris Brand is a talented programmer with a special liking for GEOS. One of

his original programs, *The Font Machine*, is a full-featured font creation and editing system.

The Font Machine is just what you need if you want more creative font styles, larger fonts or just want to try your hand at designing weird and wonderful graphic symbols.

When you double-click *Font Machine* you are given the opportunity to open an existing font file from disk or create a new one from scratch. You aren't limited to opening only the fonts that have been previously created with *Font Machine* - you can open any font at all.

This is useful if you want to create a new look to an existing font but don't want to redefine full stops, exclamation marks and other characters.

The actual editing process is very similar to using *GeoPaint* with the pencil tool. Clicking on a blank pixel will put you in draw mode and clicking on an occupied pixel will give you the eraser. I found editing of small fonts awkward when using the mouse. The screen changes slower than your mouse movements and often a straight line is difficult to achieve. This is easily remedied by using the cursor keys, which are fully supported.

One great feature of *The Font Machine* is the ability to create big 48 point fonts. Great if you're a *GeoPublish* user or just want to make an impact. Unfortunately GEOS doesn't like font definition files any larger than about 6000 bytes - limiting if you want a 48 point font. To keep the file size down you can just create the characters you need. If you don't need lower case letters then just leave them out. You do need to be careful about file sizing, since *The Font Machine* won't warn you that a file is too large to be used. Perhaps in a future update?

Creating fonts is a long and some-

times frustrating process. *The Font Machine* won't make the job any quicker or less tedious, but for the patient user with the skill it's the perfect program.

How do you get *The Font Machine*? Chris has very kindly allowed me to distribute it as part of the User Software Compilation disk I'm putting together. Also from Chris will be an MCS810 printer driver which gives much greater control and flexibility for your GEOS printing, some new mouse drivers (including one with a screen blanker), and some GEOS fonts that have been created with *The Font Machine*. Work on the disk is in its final stages and should hopefully be ready soon after you read this. Watch out for information in an upcoming column.

Chris also tells me that he's open to requests for programs. Here's my list!

- * A GEOS-based directory utility. Something along the lines of DirUtil on the Amiga would be nice. Simple and straight forward DOS access is something the C64 really lacks.

- * A GEOS equivalent of the Amiga's CLI. Wanting a Command Line Interface may sound like defeating the purpose of GEOS, but often it would seem quicker and easier to type "DELETE FILE1" than go through the process of dragging a ghosted icon down to the trashcan. I love the graphic environment, but I also love quick, clear access to functions.

- * A utility to convert regular C64 screen fonts to GEOS format. Not an easy task, but it'd sure be nice!

Letters

From the mail this month, Hamish Blunk of Beaudesert, QLD, writes:

"Dear Owen, While using GEOS I use a Commodore MPS 1230 printer. I find using the "Comm. Compat." printer driver is usually slow and does not print a total width of a page with some applications. But by experimenting with some different printer drivers and altering the set-up procedure of the printer I have been able to make the printing faster and also print a fullwidth page.

"First of all you have to change some settings in the set-up procedure:
Change PRINTER EMULATOR to EPSON FX 80
Change DOUBLE STRIKE PRINTING to BIDIRECTIONAL
Change ENABLE D.L.L. to YES 4K
BYTE LINE BUFFER

Change LINE FEED to LF=LF

Change CARRIAGE RETURN to CR=CR Change LINE SPACING to 7/72

Change BIRECTIONAL B.I.M. to YES

"Leave the rest of the settings as the Default settings, and make sure you store the changes.

"Last of all change the printer driver to 'Epson FX-80'. Although it is a lengthy procedure it is well worth it.

"Do you know of any way of being able to set up GEOS so that within an application you can change disks with only one disk drive. I find that when using applications such as geoPublish I have little room left on my disk (geoPublish takes up 99 KBytes).

"One last thing. Have you heard of a magazine in Australia called "GEOWORLD"? I got a brochure for it when I purchased *GeoPublish* this month. It is an American magazine, but it is not published by Berkley. The subscription cost \$US50 which could get rather expensive."

Thanks for the printer information. I don't use an MPS 1230 printer myself, but I'm sure many users out there that do are grateful.

The reason why GEOS likes to have the application and the datafile on the one disk is because it needs access to both at frequent intervals.

To run large applications GEOS uses 'overlays' so that only the necessary code is loaded as needed. Also, GEOS saves and retrieves parts of your documents as needed to save space. Re-

member, you're working with only a 64K computer so some sacrifices have to be made. That's why you can't always open datafiles from disks not containing the relevant application.

I have heard many good things about *GeoWorld*, but whether it's worth the \$US50 subscription price is a decision that's yours alone to make.

Mr W. Reed of Salisbury Park writes:

"Dear Owen, I'm hoping you may be able to help me. I use GEOS V1.3 which works fine with my Epson printer (dot matrix) but for letter quality print I would like to use my Commodore DPS 1101 Daisy Wheel printer. Could you please help as I don't seem to be able to find a driver for it. I've tried all of the drivers on the GEOS disk but to no avail."

GEOS is a 'graphic' environment. It works with bit-mapped images for text and pictures. Because the daisy wheel printer has no facilities for printing graphics it can't handle the output from V1.3.

V2 of GEOS does give you the option of using your printer's NLQ mode. This dumps the text to the printer and not the graphic information. I can't guarantee that it'd work, but it's quite possible you could print in GEOS V2's NLQ mode using the Commodore Compatible driver and your DPS 1101. Has anyone had success with this setup?

That's it for this month. Remember that if you have an interesting PD GEOS program, or tips, questions or suggestions, write to: ACAR, PO Box 288, Gladesville, NSW 2111. □

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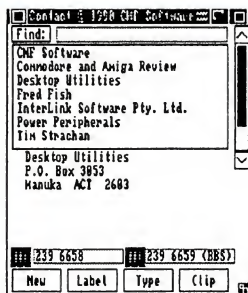
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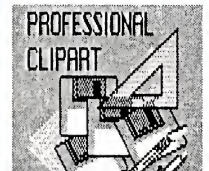
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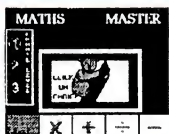
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The C64 Column

by Owen James

The C64GS appears to be very much alive. Basically, it's a C64 minus a keyboard and various ports. At the moment it appears to be a 'UK only' product. It has all the same graphic and sound capabilities as the standard C64 (why the 'GS' suffix then?).

Even if the GS doesn't make it to our shores, it still spells good news for game freaks. We should see renewed activity in the game market, which has appeared to go a bit stale of recent times. Watch out for better quality games because using the cartridge medium, software houses can squeeze up to around 512k for each game. And no wait for loading times! Ocean Software is already heavily committed to cartridge-based releases, with *Robocop 2*, *Shadow of the Beast* and many more already available. The cartridges aren't designed exclusively for the GS either. They'll function more than happily on a standard C64.

Will the C64 console be able to compete with Sega and Nintendo? All three are in the same price bracket, but the GS might have the leading edge because of cheaper cartridges. Perhaps we're in for a price cutting war? We'll just have to wait and see.

More peripherals

There certainly isn't a shortage of cartridges and other 'add-ons' for the C64. There are so many, in fact, that it's easy to become confused with what each is supposed to do. This month is a general guide to peripherals for the power-hungry 64 user.

Before we begin, a few terms you should be familiar with:

Freeze: Suspends a program at the point the freeze is activated.

From here the program may be saved, altered or restarted.

ML Monitor: Used to interpret memory as machine language mnemon-

ics. Useful for debugging software and otherwise making changes. Can often be used in conjunction with the freeze option to make changes without corrupting memory etc.

Sprite Collision Disabler: A game cheat option which, for example, ignores a collision between you and enemy fire.

Screen Snapshot: Takes a 'snapshot' of the current screen, usually allowing you to make a hardcopy, save to disk, or make changes to it. Have a copy-right guidebook on hand with this one!

Disk Turbo: Increases the speed of disk operations.

And now for a look at cartridges:

Action Replay

Possibly the favourite for game users, the Action Replay provides many useful utilities for the budding hacker. Included is a freeze utility, ML monitor, disk turbo and many more. One of AR's nicest features is that it allows you to enter BASIC POKEs while the program is in a frozen state. Once your POKEs are all in, just restart the program. As I'm sure any 'POKE hunter' will tell you, the hardest part of finding cheats for a game is actually finding a restart address.

The latest incarnations of Action Replay also allow for some extended BASIC commands. While the list of new commands is far from exhaustive, I think the cartridge was designed more for the inquisitive game player than the dedicated programmer. Because of its gaming appeal, Action Replay is one of the most popular cartridges available for the C64

Final Cartridge III

Apart from the irony of there being three 'final' cartridges, FCIII wins in the cosmetic department. It uses a GUI (graphic user interface) that will have

you pointing and clicking the same as you would in GEOS. When you power-on, FCIII automatically recognises if you are using a mouse or joystick and even which port you're using without you ever having to select the preferences option. Overall, it looks and feels solid.

Like the Action Replay, FCIII has a freeze utility, an ML monitor (including sprite and character editor) and, of course, a sprite collision disabler.

What I don't like about FCIII is that the freeze option is often far from reliable. On some occasions it refuses to even attempt to save, and on others you think the save was successful but on reloading you realise it wasn't. Also, it's a shame that you haven't the option of restarting the program from a frozen state after a save instead of being dumped back on the desktop. Perhaps a little bit more thought is needed in this department. It certainly isn't strong in the disk utilities department, either. It lets you scratch and rename files, but a single file and complete disk copier would've been nice to make this a genuine final cartridge.

BASIC programming is where this cartridge really excels. It provides a total of almost 30 new commands for BASIC programmers. Note, however, that it is not an extended BASIC in the sense that the new commands can be made an integral part of your program. Instead they are designed to be utilities to aid the programmer.

Final Cartridge III gives you commands such as RENAME, APPEND, ARRAY (dump), AUTO (line number), FIND, TRACE, RENUM, PACK, etc. The manual might leave a lot to be desired, but on the whole Final Cartridge III provides an excellent environment for either programming or general C64 activities.

Super Snapshot 4

Super Snapshot is similar in design to Final Cartridge and Action Replay, although lacking some of the features such as a character editor and joystick autofire and joystick swap.

SS4 provides the usual DOS wedge and copying utilities, as well as a BASIC toolkit extension. Unfortunately the extra BASIC commands all need to be loaded from disk before being used (like the KA43/5 Open System). Not exactly what

you would expect from a cartridge utility. It provides a fairly solid machine code monitor.

Warp Speed

Warp Speed isn't really in the league of the above three, but then again it doesn't pretend to be. WS is designed to be nothing more than a powerful DOS utility, and I might add that in the DOS handling department it beats the above three hands down.

Warp Speed lets you take charge of your drive using menus. From these you can scratch, delete, view and even copy files with the utmost of ease. Warp Speed also has a complete disk copier for one or two drives, and a very fast disk turbo. Some of the more powerful features are a track and sector editor, a machine language monitor, text screen printer dumps and a native 128 mode. WS also has a reset button and an 'old' command for the return of BASIC programs.

Recommended if you want easy DOS access without the bells and whistles of the more expensive cartridges.

Turbo Master CPU

If it's speed you're after, then look no further than the Turbo Master. Increases the speed of just about every aspect of the C64 by a factor of four. Also includes a DOS wedge and a machine language monitor can be found on the utility disk. See the review in the February ACAR for more information.

RAMLink & RAMdrive

These two are only new on the market. RAMLink is a RAM expansion unit interface designed to let you get the most out of your existing REU. RAMDrive is an actual REU with a maximum capacity of 2 megabytes. As yet I haven't seen them first hand, so I won't say too much other than the information circulating makes them sounds great.

Quick Brown Box

The QBB is kind of like a cross between a cartridge and a disk drive. It's a storage device that uses battery-backed RAM. Like a cartridge, whatever is stored on QBB is ready and waiting as soon as you power-on.

QBB comes in two versions - a 64K model, and a 32K model. Using the supplied software you can transfer your programs to the Quick Brown Box in much the same way you would if using a disk drive. If you're hoping to put something like GEOS on the QBB then you must first get an unprotected version. I'm told this is simple enough if you use either Maverick or Vorpai Aid.

Once again, I can't say much about QBB's performance because I've yet to use one first hand. They seem to be pretty scarce in Australia, but the good folk at Briwall say they can get you anything that Briwall U.S. carries, so if you're after one of these it may be worth giving them a call on (06) 288 0131.

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Letters

This first letter out of the mailbag this month comes from Eric Ireland of Beecroft NSW.

"Dear Owen, I have a C64 and have been reading ACAR for the past couple of years. I think you have a great magazine, although it would be better if you had a few more C64 games reviews. I use my C64 mostly for playing games and typing out school projects, although I am also interested in computer programming, and have written a few programs in BASIC.

"I would like to learn machine language, but I do not know which assembler I should buy, which computer shop I should buy it from, or what book I should buy to teach me. I already have *Supermon*, by Jim Butterfield, but it does not allow line numbering or labels or any other common features that most other assemblers have. I also have the Commodore 64 Programmer's Reference Guide, but it is not very helpful to the beginner. If you tell me what to buy and where to buy it from it would be very helpful.

"I have another question to ask. Recently I was looking through the memory maps in the C64 Programmer's Reference Guide and in location 53270, bit 5, it says "ALWAYS SET THIS BIT TO 0!". Just out of interest I set it to 1, (by poking 53270,255 which sets all bits to 1) and I got a weird character set. Do you know why?"

If you're going to start machine language, you may as well start on the cheap. There are a number of public domain assem-

blers floating around. Check with Allan Crouch (649 4904). He might have just what you're looking for. One I can recommend is *Turbo Assembler V4.1*. As for books, start with something for beginners. *The Beginner's Programming Handbook*, published by Usborne, is an excellent book for starting out. It may seem a little bit immature having little cartoon robots popping up on every page, but when it comes to clarity and step-by-step guides I have yet to find a book that is better. You already have the Programmer's Reference Guide which is a great resource irrespective of your level of programming ability. Another book which I find indispensable is the *6502 Reference Guide* by Alan Tully (published by Melbourne House Publishers). It gives a complete list of 6502 instructions and their descriptions, hex and decimal equivalents, along with bytes and timing information. Just the thing for finding that forgotten instruction or debugging.

Bit five of 53270 won't do anything harmful to the C64. As you've probably already guessed, it's a control register for the VIC-II chip. Bit five in particular is, or was, used to enable or disable the display. On the newer C64s this has little or no effect. By poking 255 to 53270 you've turned more than just bit five on. You've probably noticed the display has shifted off centre and any characters on screen have become a multicolour mess. POKE 53270,200 will put things right, or just press RUN/STOP-RESTORE.

Mr. W. Reed of Salisbury Park writes to ask what an EPROM is. An EPROM is Erasable Programmable Read Only Memory. Think of it as a storage device. Unlike a disk, however, you don't have a long wait for disk-to-memory transfer. You must use an EPROM burner to store information, and ultra-violet light to erase it. EPROMs can be used in place of standard ROM chips. You could make changes to the C64's operating system, as detailed in The C64 Column over the last two months, write the revised code to EPROM, and replace the C64's internal ROMs for a truly customized system.

EPROM programmers for the C64 are not easily available in Australia. Datel Electronics advertise in many of the UK magazines and offer everything you need to start EPROM programming. Their kit costs around forty pounds.

Short Program Competition

A reminder about our short program competition. Australian C64 software developers Millersoft (5 Argo Way, Airds, NSW 2560) has offered three of its packages valued at approximately \$90.00, and I'll also be making available several compilation disks of the best C64 PD software around. To enter, simply send in your original short and useful programs for the C64. Here's the guidelines:

1. Programs must be short. About four or five disk blocks long is the limit.
2. It must serve some useful purpose.
3. Programs can be submitted on disk, tape, or printed listing, though disks are preferred.
4. Entries must be received by August 31st 1991.

Those people who have sent in original programs for various reasons over the past months will be included if they're eligible. □

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TurboText

Veteran text editor user Tim Strachan has been a long time proponent of the text editing world. There are still rumours he has never used a wordprocessor - nevertheless, here he is, exceedingly more qualified than most to write about the latest addition to the fray.

I have always used text editors exclusively (rather than word processors) for editing *Megadisc*, as well as all the other writing I do. I began with *Ed* (Commodore's own troglodyte of an editor, spiffed up in WB2), moved on to *TxE*d 1.0 to 1.2 to 2.0 etc, and along the way also bought and used PTE (*Professional Text Engine*) and *Cygnus Ed* from AS-DG.

PTE is the most powerful by far of all those mentioned above, and many of its powerful features have been imitated by *TurboText* (TT from now on), particularly the availability of a built-in programming language, which therefore allows the creation of emulations of other text editors right down to the duplication of the menus. This also means that you can keep adjusting your definition file, by simply using those definitions in other files which suit you. It just happens that doing all this with TT is a lot more straightforward than with PTE.

Packaging and manual

Very neat, the typical cardboard box setup. The manual is plastic ring-bound, but the type seems to be rather fuzzy in parts. The manual is well organised and generally well-written, and there are numerous useful Appendices at the back, such as Error Messages (Dos, ARexx, Definition file, and Turbotext errors), a Command Reference for the built-in programming language, about TT under WB2, a Glossary and a pretty reasonable Index.

Emulation

One of the most powerful features of TT is its ability to emulate the commands and menus of other programs by simply loading in a new definition file, of which there are numerous supplied with the program, such as for *TxE*d, *Cygnus Ed*, *Wordstar*, and so on, as well as definitions devised to make program-

ming source code easier. It is interesting to note that while some emulations are pretty complete there are some gaps. For example, in the *TxE*d emulation, there is no "Strip, etc." option available, and this was quite useful for stripping line-feeds; there is no apparent equivalent in TT, it seems. Likewise there are improvements - the old "Print Clip" in *TxE*d brought up a requestor; now, the clip is sent straight to the printer.

Icon magic

TT is distinguished by a clever use of icons. Tool Types entered into the icon info screen are many, various and powerful. TT's icon tool types can be overridden by special tool types in particular project icons, meaning that you can have a bunch of different setups associated with different project icons, double-click them and you've got a new setup.

Likewise, there are all sorts of combinations which allow you to simply load it into memory to be activated by a hotkey; to unload itself from memory when all screens are closed; to start up with an automatic ARexx macro; to open with a custom or Public or Workbench screen; and more. Of course, all of these capabilities are available from the CLI too.

One very amazing trick with icons, in WB2 only, is that you can drag the icon for a project (text) file onto TT's open window and presto! up comes that file ready for editing. This is the first use of WB2's "AppWindow" feature that I've seen.

Other features

Public screen capability - you can pop TT up on its own public screen, meaning that other windows can be popped up onto it.

Fonts - the full selection is available via requestors.

Version - TT is supposed to be able to store and retrieve "version" informa-

tion with all files produced with it, and it should be accessible by using the AmigaDos Version command, although I didn't find anything happening when I played with it.

TTX in WBStartup drawer - this is a good way to get it going: TTX is a small version of TT which loads it into memory according to the many tool types in the icon, mentioned above.

TT has a good requestor, the nearest I've seen being *Cygnus Ed*'s rather baroque one. This one doesn't show all Assigns and Devices, but gives a large space for listings, and allows for the selection of pattern matching - ie, if you only want to see files ending in ".doc" you can enter "#?.doc" in the pattern matching gadget. Useful, but you have to remember it's on at times, or you'll think a particular directory doesn't hold the file you thought it did. Another neat feature of the requestor is the existence of a little trashcan icon under the slider bar - means you can use the requestor for getting rid of unnecessary stuff.

The full screen is available for editing, ie, unlike some editors which require you to space along to places beyond the text on a line. The cursor changes into different little graphics while performing particular tasks. The next version will have an ARexx interface to *AmigaTeX*, the amazing typesetting program.

Dragging with the mouse say at the bottom of the page scrolls the screen down, but an innovation is to have the scrolling sped up by moving the mouse to the left of the screen, and to slow it down increasingly by moving towards the right side. Three-button Mouses are supported, and you can set up a few extra tricks with them.

Anyone using ARexx often will start to be driven to distraction that there can only be one assigned REXX: directory, because it begins to get quite full... The use of ARexx with TT has obviously been well thought out. TT will still work fine as a text editor without ARexx, but you get a large number of new capabilities, and the chance to make up your own if you get really involved. Some of those included are:

- Save Block
- Print Block
- Sort Block
- Print Lines, etc. There are about 45

Creating Batch Files

by Tim Strachan

In your normal use of DOS, you will enter a command and execute it immediately. This is fine for most uses, but occasionally you'll find that you need to repeat a series of commands regularly, or that you'd like to customise the startup-sequence of your Workbench disk. In fact, the startup-sequence is the most significant of CSFs, and being able to manipulate and change it is one of the fundamental abilities you should develop.

In this tutorial you'll learn how to do so, and all the necessary tools are available on your Workbench disk. You will need to know the basic structure of CSFs, and how to edit them. There are some special CSF commands, such as EXECUTE, SKIP, and so forth, which are used in conjunction with normal CLI commands, and there is a TEXT EDITOR, called ED in your C directory which allows you to create or change such files, as well as any other text file. However, you can create a text file of any kind with any Word Processor which allows you to save a file in strict text form (as ASCII characters).

Fundamentals

1. Using ED - The text editor

As mentioned above, you will have to be able to create a text file with a text editor, and your Workbench disk comes with ED, a basic text editor quite capable of this and more. There is another "Line Editor" called EDIT in your C directory as well, but it is not easy to learn. In fact, it would be worthwhile buying a commercial editor such as *TurboText*, or finding one of the excellent editors in the public domain, which make use of the Workbench interface. In the meantime however, if you wish to create a new file, or edit an old one, using ED, simply enter in the CLI ED FILENAME, for example ED df0:s/startup-sequence if you want to change your startup-sequence (do it with a COPY of your Workbench!). Now just enter text from the keyboard to create a new file.

In the case of editing an existing file, use the cursor keys, DEL and BACKSPACE and RETURN keys to

change and add text. Let's say that we want to create a file called MAKERAM which will copy all the CLI commands into RAM, and run them from there instead of from your disk (see further below). Enter the following:

```
ED SYS:S/MAKERAM ;(You'll be presented with the ED screen.)
MAKEDIR RAM:C (Hit return)
COPY SYS:C RAM:C (Hit return)
ASSIGN C: RAM:C (Hit return)
```

You now have a 3-line batch file. If you notice a spelling mistake, simply use the cursor keys to reach the mistake and Backspace or Delete the offending letter(s).

Now you must save the file, so press ESC and you'll find the cursor drops to the bottom of the screen where further commands (called EXTENDED COMMANDS as distinct from IMMEDIATE COMMANDS which you use when on the ED screen itself) may be entered. The command to save is simply X, followed by RETURN. This will exit ED, while saving your file under the name you first gave it in the directory you specified - in this case MAKERAM in the S directory.

NB - The REFERENCE SECTION of your Amiga Manual lists all the available commands for ED, and if you decide to stay with ED, make sure you experiment with them, as they allow you many powerful possibilities for text editing.

Creating a command sequence file you must create a file with one or more CLI commands, with one command to a line, and with a RETURN character at the end of each line. Having created the file, it is a good idea to save it to the S directory of your disk, since AmigaDOS looks there automatically when you use the command EXECUTE. This means that you don't have to type out the full PATHNAME of the file - ie, where it is, such as:

```
df1:utilities/myCSF
Instead, you'll simply type
EXECUTE myCSF
```

The command EXECUTE (which is detailed below) must precede any CSF, just as it is automatically used when booting up with any Workbench disk. You can also attach comments to your CSF by simply typing in a semi-colon before any comment you make. For example:

```
MAKEDIR RAM:C;make directory c on the Ram disk
COPY SYS:C RAM:C ALL;copy all your c commands across
ASSIGN C: RAM:C;re-assign your c: directory to ram:c
```

This CSF is a most useful one to have, since it allows you to copy all your CLI commands to a C directory which you've created on your Ram disk, and then, the last line tells the system to look in the Ram:c directory when it wants to find a CLI command. These three lines could be typed into your startup-sequence to be executed automatically each time that you boot up; or you could simply name this file MAKERAM or some such name, and EXECUTE it whenever you want to.

Such a file can be refined as you wish - it may be that you are memory-conscious, and don't want to have a lot of your precious Ram taken up by commands that you rarely use. So you could adapt this CSF to copy only those commands that you use regularly into the RAM:C directory, by replacing the second line above by the following series:

```
COPY SYS:C/CD RAM:C
COPY SYS:C/DIR RAM:C
COPY SYS:C/TYPE RAM:C
COPY SYS:C/COPY RAM:C
```

You could add to this series according to which commands you'd normally use. Now such a file requires the COPY command to be read from your disk each time, so we could add a further refinement by copying the COPY command directly to RAM:C first, and then ASSIGNing a short alias to it (ie, you give it a shorter name for convenience), to speed up the processes of both executing the command and of typing it in, as follows:

```
MAKEDIR RAM:C
COPY SYS:C/COPY RAM:C
ASSIGN CP: RAM:C/COPY
```

Continued on p58

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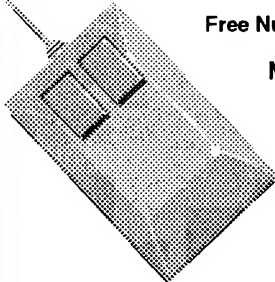
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```
CP: SYS:C/CD RAM:C
CP: SYS:C/DIR RAM:C
CP: SYS:C/TYPE RAM:C
ASSIGN C: RAM:C
```

A further refinement now could be to insert the line CD SYS:C after the first line above - this would make it unnecessary to type in the "SYS:C" before each command to be copied, since you'd already be in the directory that you're copying from.

Removing a ram disk's contents

It may be that you've got to do some memory-intensive work, such as animations, and want to use all the memory you've got. You'll want to remove all those commands on the RAM disk, so you may make up a CSF like the following (and keep it in your S directory as usual):

```
ECHO "CLEARING THE RAM DISK"
CD DF0:
ASSIGN C: SYS:C
DELETE RAM:C
ECHO "ALL DONE NOW"
```

Here's another approach to achieving the same objective, except that this time, some more use has been made of the ASSIGN and ECHO commands. Note that you could also use the SAY command, so that you're told what's happening as it happens.

```
COPY DF0:C/ECHO TO RAM:C
COPY DF0:C/COPY TO RAM:C
COPY DF0:C/ASSIGN TO RAM:C
ASSIGN C: RAM:C
ECHO "MAKING A RAM DISC"
ECHO ""
ECHO "COPYING SYS:C TO RAM"
COPY SYS:C RAM:C ALL QUIET
ECHO ""
ECHO "ASSIGNED C: TO RAM:C"
ECHO ""
ECHO "ALL DONE NOW"
```

In other words, it is up to you and what you want to achieve, and the best way of getting what you want is to experiment.

Further capabilities of batch files

Although any CLI command can be used in a command file (including the

command EXECUTE itself), certain commands were made especially for use in a command file:

IF these allow you to test conditions occurring during execution ELSE of the sequence, and to act on the results.

FAILAT - sets the level of failure at which the sequence will stop.

QUIT - QUIT will force a stop with a return code you choose.

SKIP - allows you to mark areas (LAB) in your sequence and then jump

LAB - forward to them (SKIP).

WAIT - stops sequence processing for a period of time, or until a specified time of day.

ECHO - lets you display text strings, such as prompts, from within your sequence.

ASK - lets you branch either of two ways with a Y(ES) or N(O)

Passing instructions to batch files

The EXECUTE Command itself recognises various DIRECTIVES, which allow you to pass words and substitute them in the various command lines in the CSF. Thus you can use one CSF for a variety of tasks if you design your CSF well. A "dot command" MUST be on the first line of the file. It can be any command, but is usually either a parameter template (.KEY) or a comment.

.KEY or .K This defines the names of the parameters to be passed.

This is the most important of the dot commands.

If this is placed at the beginning of your CSF, then your CSF will take whatever file follows your CSF name and substitute it wherever it sees "filename1" in the batch file.

EXAMPLE: .KEY filename1

COPY <filename1> TO :MYDOCS

To use this CSF (whose name is BACKUP, say), enter

EXECUTE BACKUP Letter

Now the file LETTER is copied to the MYDOCS directory on the current disk.

.DEF <name> <value> defines a global default parameter value (the \$ default is used on that line only)

EXAMPLE: .DEF filename1 #?.doc

If this were inserted in the above example, then if no specific filename were given, then #?.doc would be substituted for the filename, and all files of that pat-

tern would be copied to the :MYDOCS directory.

This gives you a failsafe option, since otherwise all files in the current directory would be acted upon.

.DOT <char> - redefines the command indicator character (default is dot '.')

EXAMPLE: .DOT @ then use @KEY from,to

.BRA <char> redefines the left & right parameter indicators

.KET <char> (default are '<' and '>')

This can be useful if you want to include a name which has the current default bracket characters (ie, < & >)

EXAMPLE: .BRA [

This will change the left angle bracket character (<) to the left square bracket character. Note the period after [

.DOLLAR <char> redefines the default indicator character (default is dollar '\$')

EXAMPLE: ED <file\$work.doc>

This substitutes "file", but if "file" is not given, will substitute "work.doc"

. <text> - indicates that the rest of the line is a comment.

EXAMPLE: . Dot, followed by space is a comment.

.<return> - indicates a blank comment line.

Further examples

The following sequence is used to delete a file, but make a backup first in the :T subdirectory.

. Delete a file, but make a backup first

.KEY from,to

IF "<from>" EQ ""

QUIT 20;this terminates the CSF immediately

ENDIF

IF "<to>" EQ ""

COPY <from> TO :T/<from>.Old

DELETE <from>

QUIT

ENDIF

COPY <from> TO :T/<to>

DELETE <from>

QUIT

This would be entered as follows (if the name of the CSF is BACKUP): EXECUTE BACKUP filename1,filename2
Till next time ...

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C64 Sound & Graphics

by Greg Perry

Easy sprites

Once you have the general idea about how the sprites are controlled, we can begin to use them in programs. We will look at a number of simple but interesting techniques which you should be able to adapt to your own programs.

Example: sprites as string data. The following program displays three sprites using the same sprite data for each. The sprite pattern of the number 64 sitting under a palm tree, is set up in the data statements as string data. This pattern can be readily changed by editing the program in the normal manner.

Calculation of the correct 63 numbers for the sprite pattern is done by dissecting the strings (check out the method used and work out how it does it, Lines 320-350) and the numbers are shown on the screen as they are calculated. An "A" in the data string is taken as a screen dot with bit value of 1 and a space is taken as bit value of 0. The sprites used are sprite numbers 0-2.

Points to note:

- All three sprites use the same data block.
- Remember that sprite 0 has priority over 1 and 2 and so will appear over the top of the images of the other two.
- The sprite-background priority has

been altered for sprite 1 so that it will pass underneath the screen image.

- All the sprites are programmed to randomly expand in either direction when they cross at the centre of their travels.

- For simplicity, sprite X position is never greater than 255.

```

Program: SPRITE GENERATOR
10 REM (C) GREG PERRY, BRISBANE
1984
100 REM SIMPLE THREE SPRITE
GENERATOR
110 REM SN=SPRITE NUMBER
120 REM V=START OF VIC CHIP
130 V=53248
140 REM SET EXPANDED SPRITES
150 POKE V+23,7: POKE V+29,7
160 REM CLEAR SPRITE RAM ARE-
AS
170 FOR I=832 TO 1023: POKE I,0:
NEXT
180 REM SET SPRITE POINTERS TO
DATA BLOCK
190 POKE 2040,13: POKE 2041,13:
POKE 2042,13
200 REM POSITION SPRITE X AND Y
ON SCREEN
210 FOR SN=0 TO 2
220 POKE V+SN*2,100+SN*10: REM
X POS
230 POKE V+1+SN*2,100+SN*20:
REM Y POS
240 REM ENABLE SPRITE SN
250 POKE V+21, PEEK (V+21) OR

```

```

(2^SN)
260 REM SET Colour OF SPRITE SN
270 POKE V+39+SN,2+SN: NEXT
280 REM READ DATA AND CALCU-
LATE BYTE NUMBERS
290 FOR ROW=0 TO 20
300 READ S$: PRINT S$:
310 FOR NO=0 TO 2:N=0
320 FOR BIT=7 TO 0 STEP -1
330 REM CALCULATE NUMBER
340 IF MID$(S$,1+NO*8+7-
BIT,1)="A" THEN N=N+2^BIT
350 NEXT BIT
360 REM PUT NUMBER INTO IMAGE
MAP
370 POKE 832+ROW*3+NO,N: PRINT
N:
380 NEXT NO: PRINT
390 NEXT ROW
400 REM DISPLAY BACKGROUND
AND MOVE SPRITES
410 PRINT "[CLR,DOWN4,RVS]";:
FOR I=1 TO 40*6: PRINT "[<Q>]";:
NEXT
420 REM SET SPRITE 1 TO UNDER
SCREEN
430 POKE V+27,2
440 REM NOT EXPAND X AND Y
450 POKE V+23,0: POKE V+29,0
460 REM MOVE SPRITES
470 S=255: FOR I=1 TO 255
480 POKE V,I: POKE V+1,I
490 POKE V+2,S-I: POKE V+3,S-I
500 POKE V+4,I: POKE V+5,S-I
510 IF I<>128 THEN 570
520 REM RANDOMLY EXPAND
SPRITES IN X &/OR Y
530 IF RND (0)>.2 THEN POKE V+23,
RND (0)*7+.5
540 IF RND (0)>.2 THEN POKE V+29,
RND (0)*7+.5
570 NEXT: GOTO 450
600 REM SPRITE DATA
700 REM
"765432107654321076543210"
710 DATA "[SPACE5]AAA
[SPACE3]A[SPACE3]AAA[SPACE6]"
720 DATA "[SPACE4]AAAAA
[SPACE2]A[SPACE2]AAAAA
[SPACE5]"
730 DATA "[SPACE3]AA
[SPACE4]AAAAAA[SPACE4]AA
[SPACE4]"
740 DATA "[SPACE2]AA[SPACE4]A
[SPACE2]A[SPACE2]A[SPACE4]AA
[SPACE3 ]]"
750 DATA "[SPACE]AA[SPACE8]A
[SPACE8]AA[SPACE2]"
760 DATA "AA[SPACE9]A
[SPACE9]AA[SPACE]"
770 DATA "A[SPACE10]A
[SPACE10]A[SPACE]"
780 DATA "[SPACE11]A[SPACE12]"
790 DATA "[SPACE2]AAAAAAA
[SPACE2]A[SPACE2]AA[SPACE8]"
800 DATA "[SPACE2]AAAAAAA
[SPACE2]A[SPACE2]AA[SPACE8]"
810 DATA "[SPACE2]AA
[SPACE3]AA[SPACE2]A
[SPACE2]AA[SPACE8]"
820 DATA "[SPACE2]AA[SPACE7]A
[SPACE2]AA[SPACE8]"
830 DATA "[SPACE2]AA[SPACE7]A
[SPACE2]AA[SPACE8]"

```

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840 DATA "[SPACE2]AAAAAAA
[SPACE2]A[SPACE2]AA[SPACE]AA
[SPACE5]"
850 DATA "[SPACE2]AAAAAAA
[SPACE2]A[SPACE2]AA[SPACE]AA
[SPACE5]"
860 DATA "[SPACE2]AA
[SPACE3]AA[SPACE2]A
[SPACE2]AA[SPACE]AA[SPACE
5]"
870 DATA "[SPACE2]AA
[SPACE3]AA[SPACE2]A
[SPACE2]AAAAAAA[SPACE3]"
880 DATA "[SPACE2]AAAAAAA
[SPACE2]A[SPACE2]AAAAAAA
[SPACE3]"
890 DATA "A[SPACE]AAAAAAA
[SPACE]AAA[SPACE4]AA
[SPACE3]A[SPACE]"
900 DATA "A[SPACE8]AAAAA
[SPACE3]AA[SPACE3]A[SPACE]"
910 DATA
"AAAAAAAAAAAAAAAAAAAAA
[SPACE]"

```

Exercises

1. Design your own sprite in data statements.
2. Change sprite colours.
3. Change sprite movement routine.
4. Change movement to include full range of X 0-344.
5. Change expansion to X or Y expand only.

Example: Bouncing and full range of X. To program a sprite to "bounce" around the visible screen area, like a ball on a billiard table, involves increasing or decreasing the X and Y coordinates and ensuring that, when the boundary (as defined above) is reached, the corresponding X or Y movement is reversed in direction. This is shown by the following subroutine.

Add these Lines to the program above.

```

550 REM RANDOMLY BOUNCE
SPRITE
560 IF RND(0)>.2 THEN GOSUB 590
580 REM BOUNCE SPRITE AROUND
SCREEN
590 X=128:Y=128 592 S1=1+2*(RND
(0)>.5):S2=1+2*(RND(0)>.5) 594
SN=INT(RND(0)*3)
600 X=X+5*S1:IF X<=24 THEN S1=-1
610 IF X>=343 THEN S1=-1
620 Y=Y+10*S2:IF Y<=50 THEN S2=-1
630 IF Y>=229 THEN S2=-1
640 POKE V+16,2^SN+2^SN*(X-256)
650 POKE V+SN*2,X+256*(X-255)
660 POKE V+1+SN*2,Y
670 IF X>90 AND X<130 AND Y>90
AND Y<130 THEN RETURN
680 GOTO 600

```

NOTES

1. Line 590 sets the starting coordinates.
2. The RND statements are used with great effect to decide how often a bounce will occur and, when one does, to randomly select which of the sprites 0-2 will move and in what direction.
3. S1 and S2 are the signs of the X and Y movement respectively, i.e. when S1 = 1, the X value will increase and when S1 is -1, the X value will decrease. At the boundary, the sign of the movement is simply reversed. Line 592 randomly sets these to either 1 or -1. The expression $2*(RND(0)>.5)$ is zero if RND(0) is less than 0.5, otherwise it equals -2.
4. The full range of X is used, Lines 640 and 650. Line 670 returns to the main program if the bouncing sprite is roughly near the other two.

Further examples of bouncing sprites are given later.

Multicolour sprites

Once you understand how to create high resolution sprites, the construction of multicolour sprites is only slightly more complicated.

A number of salient features must be noted. First, the effective horizontal resolution of the pattern is reduced to 12 dots but, in the sprite image on the screen, each dot is now displayed as two pixels wide. Each of these pixel pairs may be in one of four colours. The sprite is still constructed on the 24 by 21 grid, but to convey the colour information each horizontal dot is set with a pair of bits.

Each of the four combinations available in this bit pair describes the colour of the screen dot, either transparent ("off" or screen colour), the main sprite colour or one of the two sprite multicolours.

Bit Pair	Colour	Colour Register
left right	on screen	location
0 0	transparent - screen colour	53280
0 1	multicolour 0	53285 (V+37)
1 0	sprite colour	V+39+SN
1 1	multicolour 1	53286 (V+38)

Let's assume we wish to draw a single line (12 screen dots of 24 pixels) evenly divided into the four colours. The first three dots will be in multicolour 0, the next three transparent ("off", screen colour), the next three in the selected sprite colour, and the last three in multicolour 1. The line of 24 bits (3 bytes) will be

continued on p 64

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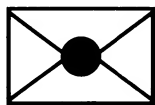


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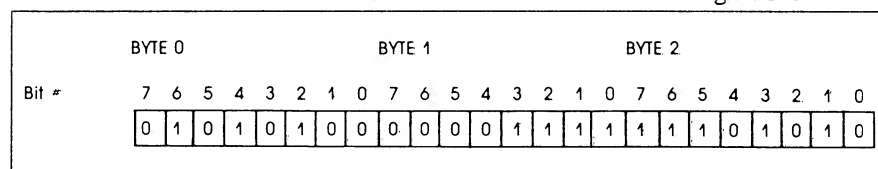
.....

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BIT PAIR	0	1	2	3	4	5	6	7	8	9	10	11
	X	X	X				X	X	X	X	X	X
	multicolor0			transparent			sprite color				multicolor1	

Figure 5-6



To change a sprite from high resolution to multicolour involves setting the appropriate bit in the sprite multicolour select register.

```

For Sprite SN
select multicolour
POKE V+28,PEEK (V+28) OR 2^SN
select high resolution
POKE V+28,PEEK (V+28) AND (255-
2^SN)

```

Some examples are:
set sprite 2 to multicolour
POKE V+28,4
set all sprites to multicolour
POKE V+28,255
set all sprites to high resolution
POKE V+28,0

One of three colours (called the sprite colour above) is the same as for high resolution mode and is set according to the sprite number ($V+39+SN$). The other two are common for all multicolour sprites and are set by

Multicolour 0 POKE V+37,colour (0-15)
Multicolour 1 POKE V+38,colour (0-15)

Note: A PEEK to these locations after a RUN/STOP and RESTORE returns the values of 244 and 240 respectively, since the left-most four bits in these locations are always set to ones, the default colours are therefore 4 [PUR] and 0 [BLK].

As an example of using multicolour sprites

1. Replace the following lines in the sprite generator program.

```

690 REM MULTI-Colour SPRITE DATA
700 REM
"765432107654321076543210"
710 DATA"[SPACE24]"
720 DATA"[SPACE24]"
730 DATA"[SPACE24]"
740 DATA"[SPACE6]AA[SPACE8]AA
[SPACE6]"
750 DATA"[SPACE8]AA[SPACE4]AA
[SPACE8]"
760 DATA"[SPACE10]AAAA

```

```

[SPACE10]"
770 DATA"[SPACE8]A[SPACE]A
[SPACE]A[SPACE]A[SPACE9]"
780 DATA"[SPACE6]A[SPACE]A
[SPACE]A[SPACE]A[SPACE]A
[SPACE]A[SPACE 7]"
790 DATA"[SPACE4]A[SPACE]A
[SPACE2]A[SPACE]A[SPACE]A
[SPACE]AA[SPACE]A[SPACE5]"
800 DATA"[SPACE2]A[SPACE]A
[SPACE2]A[SPACE]A[SPACE]A
[SPACE]A[SPACE]A[SPACE]AA
[SPACE]A[SPACE3]"
810 DATA"A[SPACE]A[SPACE]A
[SPACE]A[SPACE]A[SPACE]A
[SPACE]A[SPACE]A[SPACE]A
[SPACE]A[SPACE]A[SPACE]A
[SPACE]"
820 DATA"[SPACE4]A[SPACE]A
[SPACE]A[SPACE]A[SPACE]A
[SPACE]A[SPACE]A[SPACE]A
[SPACE5]"
830 DATA"[SPACE6]A[SPACE]A
[SPACE]A[SPACE]A[SPACE]A
[SPACE]A[SPACE]A[SPACE5]"
840 DATA"[SPACE8]A[SPACE]A
[SPACE]A[SPACE]A[SPACE]A
[SPACE7]"
850 DATA"[SPACE8]AA
[SPACE6]AA[SPACE6]"
860 DATA"[SPACE4]AAAA
[SPACE10]AAAA[SPACE2]"
870 DATA"[SPACE24]"
880 DATA"[SPACE24]"
890 DATA"[SPACE24]"
900 DATA"[SPACE24]"
910 DATA"[SPACE24]"

```

and to select multicolour mode, add the line

135 POKE V+28,7

RUN the program and look at the pattern to decipher how the colours are achieved.

2. Change the default multicolours by selecting two colours then add the Lines

136 POKE V+37, colour
137 POKE V+38, colour

```

720 DATA "
730 DATA "
740 DATA "      AA      AA
750 DATA "      AA      AA
760 DATA "      AAAA
770 DATA "      A A A A
780 DATA "      A A A A A
790 DATA "      A A A A A A
800 DATA "      A A A A A A A
810 DATA "A A A A A A A A A A
820 DATA "      A A A A A A A
830 DATA "      A A A A A
840 DATA "      A A A A
850 DATA "      AA      AA
860 DATA "      AAAA      AAAA
870 DATA "
880 DATA "

```

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Phil Campbell's Entertainment

All the latest news and views from the world of Entertainment

New Budget Titles From Pactronics

Aquanaut, by the producers of *The Krystal*, has just been released as part of the new Pactronics budget line at a remarkable RRP of \$19.95. With three disks crammed full of action it's a definite bargain. *Star Goose*, another nice blast from the past, *Prospector in the Mazes of Xor*, *Eye of Horus*, (a platform style arcade adventure), *Bad Company*, *Starblaze* (a 3-D space shoot-em-up), *GFL Baseball*, *GFL Golf* and *Hyperforce* are part of the new range too - watch out for them in your local computer store.

ACAR Hints Disk improved

Reader Adrian Jenkin of Elizabeth North, SA, has put a lot of time and effort into improving our hints and tips disk. Now the hints are arranged in al-

phabetical order, and split into convenient subdirectories - well done, Adrian. Remember, you can get your own *ACAR Hints Disk* by sending a blank disk, a stamped, self addressed envelope, and a cheque for \$5.00 to Phil Campbell, PO Box 23 MacClean NSW 2463. Make sure your SSAE is big enough for a disk!

CD-TV released at last

By now, some of our readers may even be messing round with their very own CD-TV! The entertainment machine of the decade was released at the World of Commodore show at Sydney's Darling Harbour last month to crowds of drooling punters. Here at the ACAR Entertainment section we'll certainly be keeping you posted on all the CD-TV developments.

MINDSCAPE

Wonderland winners

This would have to rate as the most successful competition we have ever run! We had everyone running to their encyclopedias to discover that Lewis Carroll was really Charlie Dodgson, a boring old Maths lecturer, that Alice was based on Alice Liddell, and that the hare was a March Hare. Well done, and even if you didn't win, at least you can say you learned something. Who says ACAR isn't an educational mag? So without further ado, congratulations go to:

Anne McLennan of Mt. Austin NSW
Andrew Foster of North Rocks NSW
Robert Davidson of Greensborough VIC
Francis Leeken of Milperra NSW
Paul Veselovsky of Wilston QLD

You'll be sure to enjoy WONDERLAND - the classicst adventure game yet. Thanks to Mindscape for the prizes.

MINDSCAPE AUGUST COMPETITION

SPIRIT OF EXCALIBUR

Here's a chance to join in some hair raising medieval action. MINDSCAPE are giving away five copies of

SPIRIT OF EXCALIBUR, and

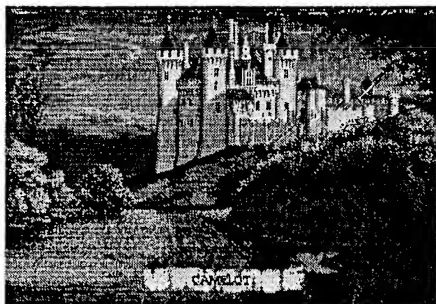
one of them could be yours! Simply read the review of the game in this issue, then answer these questions on the back of an envelope. Stick **MINDSCAPE COMPETITION, c/o PHIL CAMPBELL, PO BOX 23 MACLEAN NSW 2463** on the front, and YOUR name and address clearly on the back with your answers.

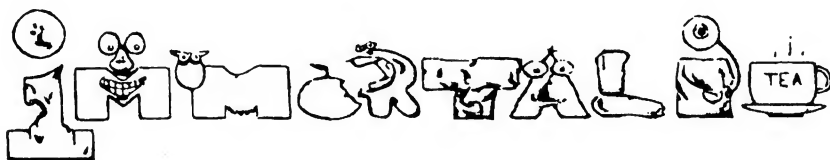
So what are the questions? Here they come...

- Which "Sir" do you become?
- What year is it in merrie Englande?
- Name two nasty knights.
- Name two other good knights.
- What show does the famous line "Goodnight John-boy" come from?

Don't mess around - get your entry in the mail as soon as you can!

This game is too good to miss.





I've only received a few old tips from one reader this month, so I'll begin with some of my own. They're cartridge only, but that can't be helped with the majority of games today.

If you've got tips (not pokes) on how to complete games, then send them to me and stop whinging about the cartridge pokes!

Creatures

This is the latest game from Thalamus, a company with a reputation for producing only quality games, and this is no exception. *Creatures* is one of the few recent releases to be as polished as a yuppie's BMW! It's damn good. As well as the poke, there is also a built in cheat for those of you with no cartridges. Simply (?) wait until the music dies out, now waggle the joystick in port one. The Fuzzies on the high score screen should be jumping up and down like they've got a bad case of Lemon Curry while you waggle. Keep waggling until the Fuzzies turn grey and then stop, plug the joystick into port two and play the game with infinite lives (admittedly, you may have to get a new hand...).

POKE 754, 173 : For whole legions of hung-over Clyde Radcliff's...

POKE 46888, 173 : To stop that precious time from tickin' away.

POKE 15594, 96 : So Clyde can kill earth-ridden slime, but they can't kill him!

Golden Axe

Probe are a programming team that churn out quality games on the C64 like there's no tomorrow (which may be right for the Oz industry), but *Golden Axe* is an exception. No two player mode, only one enemy attacking, no villagers running wildly across the screen, this game has so many faults in the conversion stakes that it's not worth listing 'em all... But if you wanna see Tyris Flare's excellent maximum magical fx, then 'ave a squiz at these pokes!

POKE 13150, 173 : To get loadsa energy, just like eatin' ya weetbix!

POKE 65476, X: POKE 65477, X : Where X is the number of the magic that you want, but it can't go past your selected character's maximum.

POKE 3817, 173: POKE 3820, 173 : For infinite magical pots...

Midnight Resistance

VISUAL FX are to style and quality as Paul Keating was to stuffing up the economy. They are a pretty damn good programming team. Paul Keating was pretty damn good at stuffing up the economy. Nuff said...

POKE 10169, 173 : For unlimited resistance fighters.

First Strike

Here's a cheat for this lurvely *Afterburner* clone, just load the game, reset and type: POKE 38316, 173: SYS 2051 <RETURN> and infinite lives are yours...



Monty Python's Flying Circus

Spam, spam, spam, spam, spamitty-spam, luvrly SPAM... What? Oh right, the tips. Yes, well, if you wanna have infinite Gumbi's just type ANNE CHARLESTON on the high score screen and before you can comment about exploding TV penguins, you've got a luvrly can of ... erm ... unlimited Gumbi's

Usagi Yojimbo

I have no idea what this game is like, but if it's anything like the *Turtles* game, then it's a waste of time. So, if you wanna waste your time then POKE 20686, 15 for infinite money.

Jack the Nipper II

If my memory serves me right this was a pretty good arcade-adventure in it's time. But if it wasn't, blame it on my lobotomy!

POKE 51114, 173 : For infinite nipper...

Retrograde

That's how old these tips are folks, this game is the one that the guys at APEX did before *Creatures*! But it still deserves a bit of a poke...

POKE 50374, 173 : To give your spectruesque spaceman unlimited energy.

GRYZORURRRGGH!

This game is such crap that the AMSTRAD version was better!

POKE 29187, 189 : For infinite Gryzor's.

Delta

Hmmm, Stravros Fasoulas' second last game before he gave up programming and joined the army... One of the greatest shoot-em-ups of all time, even though a poke does help a bit...

POKE 2386, 0 : To stop your weapons from wearing out.

Parallax

Not one of Sensible Software's best games, yet not one of their worst (GALAXI-BIDS, yuk!). If you want infinite lives so you can figure out this really un-self explanatory game then go into your cartridge's poke mode and enter: POKE 5796, 96 For unlimited ships. Well, that's all from Jellyfish, and that's all from me... So, send anything at all to me (especially a can of SPAM for my collection) at this address:-

Slartibartfast,
4 O'Connor Dr., Bray Park, NSW 2484. □

Amiga HINTS & TIPS

Super Wonder Boy

Jason Stubbings (aged 9) of Carey Bay NSW, says if you get hit by the last monster on the first level about a centimetre away from the end castle, a heart will come out. Grab it! Thanks Jason. Tell your dad those rumours are true - I haven't finished the Mayhem level on *Lemmings*, so send in the codes. Mind you, some hints for the r-e-a-l-l-y tricky levels would help, too!

Shadow of the Beast II

David Rich of Caringbah, NSW is hooked on *Shadow of the Beast II*. He's sent the following handy tips:

1. After going west and rescuing the demon held captive, he'll recite a lengthy spiel about rescuing his "companion". The only valuable information I've been able to get from him is about the "traps". He'll then tell you which lever to press on the upstairs bridge which crosses the acid pool in the "Western Passage". This activates the elevator. Hit the wrong one and you're history!

2. Rescuing this demon "companion" is necessary to get the password for entrance to the "Eastern Passage" and the subsequent reward of the "parchment" (I think!). In the spirit of true sportsmanship, this password is variable, as is the lever in Hint no. 1. ie. the mongrels make sure that you can't bypass certain sequences in the game; but as in *SOFTB1*, you've got to play right through!

3. Go down the rope, head left, past the Giant Macemen to the "Karamoon Oasis". Get the jug upstairs and split.

4. Once the parchment is obtained, the next step is to head east, past the pygmies, kill the Monster Who Shoots Gobs Of Green Goo, and get his throwing axes. Then go back and stomp on the thin stretch of ground. This'll get you into the "Crystal Caverns".

5. Once inside the Caverns, the aim is to obtain the "ring". Waste the guards and use the throwing axes to kill the drawbridge winder. First go up and hit both levers. Then go down and grab key no. 1 and get captured! Offer the jug in Hint no. 2 to the guard, get key no. 2 and grab the ring. You must rescue BOTH prisoners in order to escape through the Corridor of Spikes.

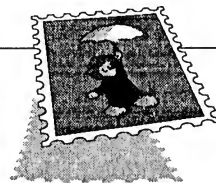
6. Head east, past the Serpent Sea Monster, the acid river and the bothersome bats. The Silvery Steel Swordsman can be vanquished by looking closely at the bridge.

7. The solution to Hint no. 7 will provide you access to the Whirlpool World. It's here that you'll obtain the Sea Horn. But be warned! The Giant Speaking Snail demands ALL your cash to get back!

8. Offer the Ring and the Parchment to the "Old Man". He'll then cast a "spell", and he's more helpful in providing information. □

Entertainment MAILBOX

PO Box 23 Maclean NSW 2463



Address your entertainment letters to Phil Campbell, PO BOX 23 Maclean NSW 2463, or fax them on 066 452060. Keep your comments or questions brief and to the point.

FRA - The Riddle Answered

Dear Phil, In the June Edition of *ACAR*, Andy Phang asks in his review of the game *Tower FRA* if any German readers can enlighten him as to the meaning of "FRA". I'm not German, but FRA is the IATA (International Air Transport Association) airport code for Frankfurt-Main. I hope this is of some help.

Kingsley Bugarin,
Guildford WA

Ed: Sorry, you're not German so we can't accept your answer. Seriously, though, Kingsley, thanks for taking the time to enlighten us. And just think ... you're one of the few people in the world to know something that Andy Phang didn't!

Back to the Future help wanted

Dear Phil, I have just purchased an Amiga 500 along with *Back to the Future*

2. Trouble is, I haven't been able to make it past the first level because of difficulties in trying to ride my hover board through Hill Valley. I've tried time after time, and I still can't make it. Would you please - I repeat, would you PLEASE - help me by telling me the cheat for the game, as I'm sure there would be one. I feel if I can't obtain these, then I would have wasted my money.

Andrew Webb
Toogoolawah, Qld

Ed: Well, Andrew, you'll be glad to know our readers have a great track record in answering pleas for help. And yours, I might add, is more heart-rending than most. Keep watching these pages!

More help please...

Dear Phil, Can anyone help me with the game *Spherical*? I'm currently stuck on Level 20, because I don't know how to kill the dragon. I have a C-64 computer, and although the C-64 content in *ACAR* is getting lower, I still enjoy reading the articles, tutorials and reviews on the Amiga. Keep up the good work.

Edmond Tatti
Tullamarine, Vic

Ed: Thanks for the comments on the mag, Edmond - we're trying to keep the C-64 fires burning, but the day has to come

when you take the leap to Amiga-land. And when you do, you'll be well prepared. In the mean time, let's hope some readers can help with your Spherical dilemma.

Flights of fancy for C-64

Dear Phil, Could you please advise me at to the best fighter pilot simulation game for the C-64. I've got the *F-15 Strike Eagle*, which is good, but what about *F-16 Combat Pilot*, *F-18 Hornet*, *Fighter Bomber*, and *Project Stealth Fighter*? Any help would be greatly appreciated.

Mark Bishop
Wagga Wagga, Vic

Ed: Our C-64 specialist Damian Caynes says *Fighter Bomber* has great presentation, but is a little slow. He recommends *Acro-Jet* from MicroProse. Contact Questor on 02 662 7944 for details of availability.

Pat on the back for clever contacts

Dear Phil, Just a quick letter to say thanks to all the "Clever Contacts" people in your mag. They've helped me complete two of my games - top class service! It's great to know there are people like them around who are willing to help fellow games-addicts.

I enjoy reading *ACAR* a lot. I recently converted from an English mag, which was filled with nothing but shoot 'em ups. *ACAR* is great, because not only does it have excellent reviews on a wide variety of games, but it's got *Adventurers Realm* and your excellent column. Keep up the good work!

Ben Toyne
Brisbane, QLD

Ed: Credit has to go to Mike Spiteri and the *Clever Contacts* team, as well as other readers who write in with help.

Long live The Giana Sisters

Dear Phil, I'm a new Amiga owner, and I enjoy reading your magazine very much. Could you help me out with cheating in *Giana Sisters*, please? What I need are unlimited lives ...

Simon Valentine
Bendigo, Vic

Ed: Stay tuned, Simon - and just to keep you going while you wait for someone to write in, try pressing A,R,M,I,N keys together to skip the level you're stuck in.

Competition confusion

Dear Phil, I've bought about 10 issues of *ACAR*, and I think they're great value for money. My only disappointment is that when you have the *Mindscape* competitions, I've only got a week to enter by the time your mag ends up in my newsagent!

Matthew Diggins
Port Pirie, SA

Ed: You're not the first to complain, Matthew, and we're doing our best. Problem is, we like to announce the winners two months after the competition, and to do that we've got to close entries by the end of the month. So remember, don't dilly-dally - get your entries in as quickly as you can. In the meantime, we'll do our best to stretch our deadlines.

Dealers panned and praised

Dear Phil, Thanks for your competitions and the variety in the mag. I'm writing to tell of my experiences with some of the companies that have ads in your mag. I've had a bad run trying to order 'Powercopy' from PCM Computers. After chasing wrong addresses and trying STD phone calls, I had no luck. In desperation I sent off to to PCM's P.O. Box - and after three weeks I finally got the goods! The pain is that you need two disk drives to use it. On the other hand, *Mindscape* have been fantastic - efficient, responsive, and polite to boot. All the best with a great magazine.

David Rossi
Ulverstone, Tas

Ed: Well David, the fact that you need two disk drives to use *Powercopy* is hardly surprising - why didn't you do your homework first? And whose fault is it if PCM weren't at the address you wanted them to be? Sending mail to a PO Box is hardly a "last resort" - I mean, businesses have PO Boxes for just that very reason, don't they? A three week turn-around on your order may be a little on the long side - maybe they were out of stock when you ordered?

CLASSIFIED ADVERT

Please place the following classified ad in the next issue

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RATES: \$8.00 for 15 words & 50c for each extra word. Find enclosed a CHEQUE or please debit my Bankcard:

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Phone Peter on: 042 849 754

Amiga

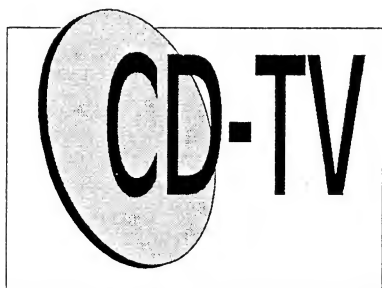
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Ask for Andrew Dunstall



An Entertainment Revolution

Gail Wellington, Director of Special Projects, Commodore International, last month introduced Australia to a quiet revolution in home entertainment. The Darling Harbour launch of the clumsily named but neatly acronymed "Commodore Dynamic Total Vision" opened with a singer on a real live horse. Naturally, the horse did what horses do best in the middle of the red carpet. Then there were some speeches. And finally, a full scale demonstration of the much touted "CD for your TV." With 650 megabytes of storage linked to the Amiga sound and video chips, and access to full audio CD capabilities as well, the CD-TV is a mind stretching machine - especially if you want to play games.

Wellington demonstrated a number of upcoming titles, and all of them were impressive. In every case, the huge storage capacity of the CD unit was put to good use, sometimes for graphics, sometimes for sound, and sometimes for a huge database of information.

What, for example, do you get when you photograph Muirfield golf course every 30 metres or so and store the results on compact disk? You get *Jack Nicklaus Unlimited Golf*, the first golf simulation that approaches virtual reality. Produced by Accolade, the game features a beautifully animated golfer, great sound effects

and breathtaking real-life views. Scheduled for completion before Christmas, the game will retail for under \$100.

Xenon 2 - Megablast is already a well-known game. It's a vertically scrolling shoot-'em-up, full of high speed action for players with razor sharp reflexes. The original Amiga version was famous for its pulsating sound track. But wait 'til you play the enhanced CD-TV version. Now the synchronised audio track is lifted straight from compact disk, and the impact is dramatic. Hook it up to your home stereo and you will feel like you're at the movies.

One popular game that didn't quite survive the transition from board and dice to screen and disk was *Trivial Pursuit*. British software house Domark spent a fortune on obtaining conversion rights, then produced a computer game that was inferior to the original in almost

every respect. That, of course, was pre CD-TV. Add hundreds of high resolution digitised pictures, full stereo sound and computerised animation to the database of 2000 questions and *Trivial Pursuit* comes to life.

The animated quizmaster - a cartoonish owl - asks questions in a clipped British accent. "What percentage of chimpanzee genes are the same as a human being's?" As he speaks, the screen displays a colour picture of a cheeky chimp. Give the correct answer - 99% - and an orchestra bursts into life with a full scale fanfare, accompanied by the applause of a huge audience. Very rewarding.

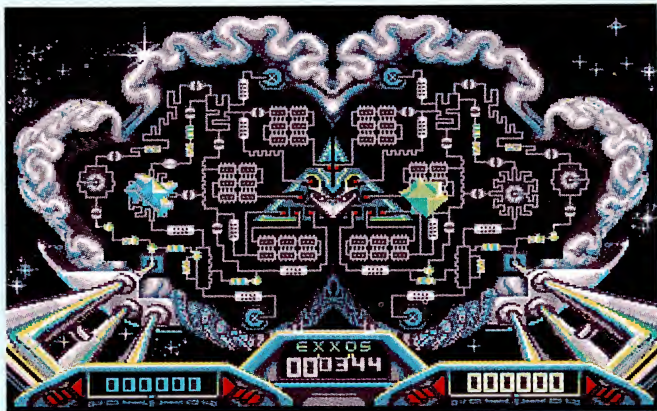
Without a doubt, though, the star of the show was *PlanetSide*, an amazing game from Psygnosis. It's still far from finished - in fact, it's not scheduled for release until Christmas 1992. But boy oh

boy it's hot. As the roar of jet engines pumps through the stereo speakers a steely-grey fighter swoops across the screen. A mountain landscape scrolls smoothly underneath - fractal graphics, regenerated from compressed data on the fly. The view changes. Now we're in the cockpit, and it's a life and death chase as we try to bring down a guided missile. Another scene change, just like at the movies, and now we're looking at the action from above. This stuff is real - and nobody can resist applauding as Gail Wellington brings the demonstration to a close.

These are games to look forward to - and they're just the beginning. The CD-TV is an entertainment platform with immense potential, and from this early taste of what's on offer it looks like the potential will be realised. Here at the ACAR entertainment section we'll be keeping you informed - watch out for our brand new CD-TV section starting next issue. □



Big Box



Blood and Tintin on the Moon. Now they're in the *Big Box*. But don't complain. They're still good games, and at the recommended retail price of \$79.95, you're paying less than eight bucks each.

Hostages is another game with a good pedigree. You're the leader of a crack anti-terrorist team assigned

Maybe Paul Keating has faded from view, but his recession is still larger than life. It is at my place, anyway. You're struggling to make the house payments. You can't afford petrol for the Jag. Your Bankcard bill is burgeoning. And you really, really NEED some new computer games to add a little joy to your otherwise drab existence.

But what can you do? New release games are a luxury. With prices near the thick end of the hundred dollar mark, a new game can make a big hole in the average weekly budget.

The answer, if you're patient, is to wait for your favourite game to be released in a compilation pack. Sure, the yuppies have played it already. But who cares? You're going to get a bargain.

The average compilation pack contains four games for about the price of a single new release. Not bad. But these days we're talking recession, and that means it's time for something more drastic. Something like the *Big Box*. The name fits. The box is twice the normal size. And inside it you'll find not four, but ten Amiga games.

The titles come from the back catalogue of quality French software house Infogrames, and granted, they're getting a bit long in the tooth. Amazing how time flies - back in 1987 I was impressed by pre-release demonstrations of *Captain*

the task of liberating a group of hostages in an embassy. With smooth, large scale animation and atmospheric gameplay, this is a game with real class.

Jumping Jackson is altogether different. This one is a puzzle style maze game with a healthy dash of rock-'n-roll. In a unique twist, *Jumping Jackson* makes you build your own sound track. The cutesy guy you guide around the screen picks up colour coded records - put a disk on the matching turntable, and the music begins. First the bass track. Then drums. Then guitar. And you've got your very own version of the Rolling Stones classic *Jumping Jack Flash*. Different indeed, and very good fun.

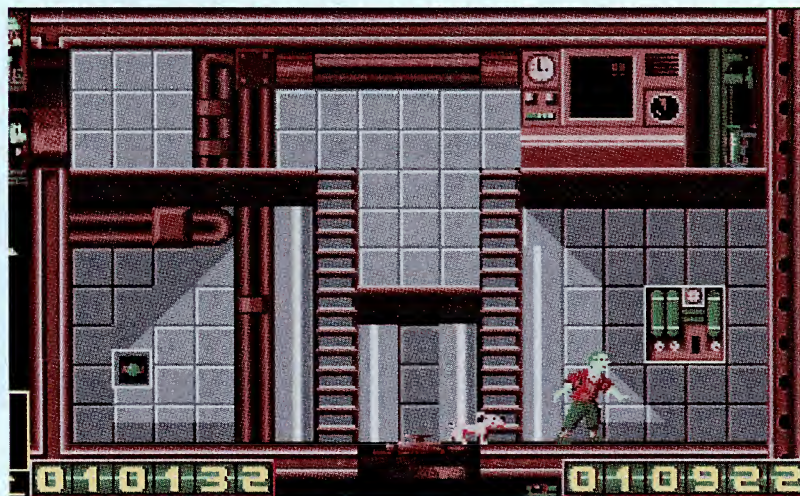
In a vaguely similar vein comes *Krypton Egg*, which is nothing more nor less than a very smooth version of *Breakout*. Remember the primordial video game where you had to bounce bricks out of a wall with a blip shaped ball? Same game, but now with much more finesse, and a host of added features like power-up bonuses and laser canons. It doesn't claim to be original - there are plenty of *Breakout* clones. But this one is as good as most.

Safari Guns promotes an interesting ethic. You're in the wilds of Africa, and you're carrying a camera and a gun. A parade of wild animals and khaki clad poachers passes across your screen at random - and guess which ones you have to shoot? Yep, this is another case of greenies gone crazy - shoot as many people as you like, just as long as you don't touch the animals. Still, it's a pretty entertaining game requiring fast reflexes on the change from camera to gun.

Teenage Queen didn't have much appeal. Playing strip poker with a computer is not my idea of fun. Trouble is, I always lose - not a good game for winter.

Bubble Plus, *Stir Crazy* and *Purple Saturn Day* are the remaining titles, and I haven't really checked them out. After all, playing your way through ten games takes time. That's why the *Big Box* is big value. Plenty of variety, good quality games and a reasonable price tag make it a compilation I would happily recommend. □

Distributed by:
Pactronics
02 748 4700
RRP \$79.95
C 64 \$49.95



ANDREW GORMLEY was feeling bored. But then he got hold of a life-changing game from Mindscape, and with all the zeal of a missionary, he's out to convert you. Will he succeed? Read on...

Turrican II: The Final Fight



About a year ago, Rainbow Arts produced what is arguably one of the best shoot 'em-ups of all time: *Turrican*. The combination of great graphics, fantastic gameplay and absolutely brilliant sound blew *Turrican* into the charts with after-burners ablaze. This excellent game gave Rainbow Arts a much needed boost. This time, however, they've gone one better and released the sequel - *Turrican II: The Final Fight*.

And they have indeed gone one better. All of the factors which gave *Turrican* its popularity have been included - and also enhanced - while the slight flaws have been ironed out. For example, the laser which simply turned without out any action from the little fighter in the original (shooting through your head was quite amusing!) has been changed so that he actually swings the gun around in a full circle. There are many other little details like that which make *Turrican II* a great game.

The detail in the graphics is incredible. The characters are superbly drawn with realistic movement. Not only that,

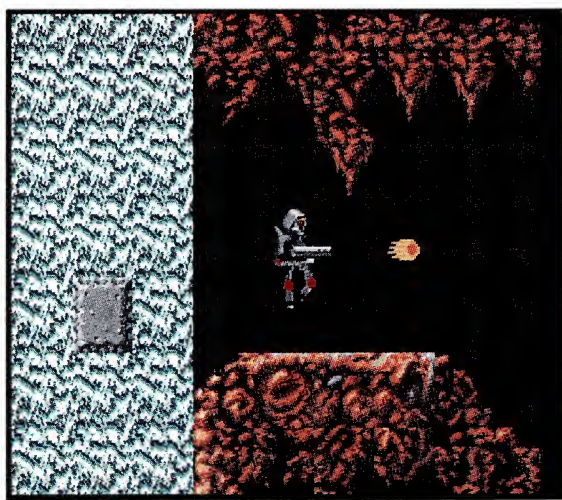
but the range of colour is startling if you study the background scenes closely. I reckon that there would be a spectrum of around 64 colours in just one of the waterfalls!

As in the first *Turrican*, the scrolling is excellent and doesn't hamper gameplay at all. It's very smooth and gives the game a good all-round feel.

I think that the music has fallen ever so slightly in its relation to the game. The soundtrack is good, but isn't the exciting and victorious megablast we had all enjoyed in the original. Full marks to the composers of the tune - but this time the music isn't quite appropriate for the fast-moving, quick-acting game which *Turrican II* is.

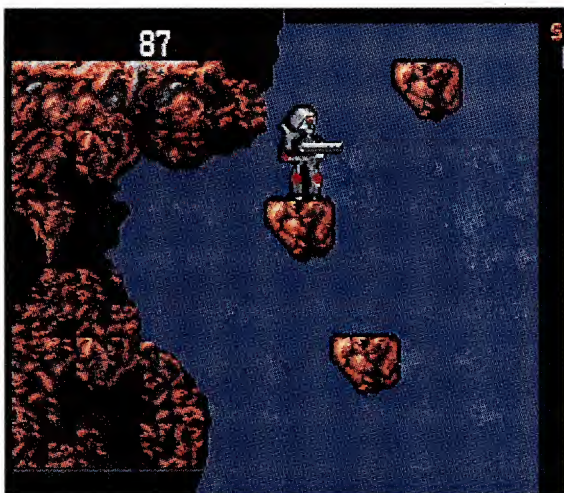
Finally, the complex gameplay is the factor which changes *Turrican II: The Final Fight* from a simple shoot 'em-up with good graphics and sound to an award-winning computer hit. Even in the first *Turrican* it was a little bit of the old 'go from left to right and shoot anything that moves'. The sequel has changed all of that. Well, maybe with the exception of shooting anything that moves!

For example, in one level, you are blocked from getting to the extreme right of the level by a furious wind which throws out all the little dead critters you blew apart - as well as a few live ones to keep you from getting complacent. The answer? Just jump down a waterfall to find yourself in an entire underground cave complex full of monsters - the nocturnal



variety this time! After destroying the cavern community you have a choice of a number of tunnels to the surface, but only one will get you right to the top. It's then that you have to fight the big end-of-level guardian. And what's he like? Again the magnificent gameplay. I'll give you just one comment: AC/DC should hire him as a professional dancer for Thunderstruck.

By now you should be able to realise why *Turrican II: The Final Fight* is such a superb game and why it is claiming rave reviews all around the globe. C64 users don't have any reason to complain either, as Rainbow Arts have released the Commodore version as well - and from what I've heard it's as near Amiga quality as that computer will go. □



Distributed by:
Mindscape
02 899 2277
RRP Amiga \$69.95
C 64 cassette \$39.95
C 64 disk \$49.95

ROSS CAYNES doesn't know whether he's coming or going. And he doesn't know whether he likes this game or not. I think he does. But read on, and decide for yourself...

After three years of belting out Advanced Dungeons and Dragons computer role-playing games, you would think SSI would be innovative and try something completely different, wouldn't you? Of course you would (I know I did). But if you've been

Death Knights Of Krynn



You may notice I called D.K.O.K. (oo-er) a 'computer role-playing game'. Perhaps this is a bit strong when you come to think of it. You see, enjoyable though the game is, it is little more than a first-person perspective hack-n-slash-walk through a maze-pick up the magic items and then finish the game type of thing. What I mean is, there isn't really much role-playing in the game. There are some yes or no questions and quite a few mazy bits, but no pure role-playing. It might have been best if SSI had called it a 'Computer Combat Game' because roughly threequarters of your time is spent doing just that.

This minor gripe (I know it doesn't look minor) is one of the things that should be pointed out - it just isn't the game for hardcore role-players. There are a number of other gripes as well, unfortunately. For example, chintzy sound.

It would also seem that they've had the same problem with the non-combat graphics as they're almost the same as, in fact they may be a bit worse, than, those on *Pools of Radiance*! Except for the map, of course, which has fewer distinguishing features than a rotten lemon. Quite a few times I found myself trying to walk into a rock, thinking it was a town, only to bump into a mountain half an hour later to discover it's really a city in fancy dress!

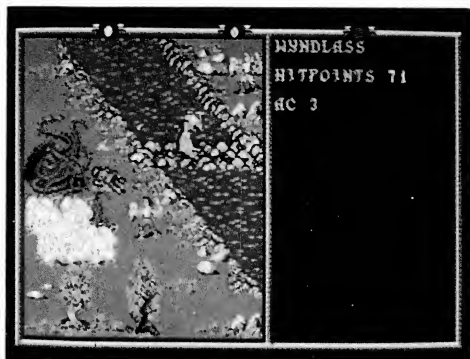
But enough of my whinging, eh? The way I go on it seems like the game is about as much fun as Saddam Hussein in bed. There are in fact several good points to the game.

The combat graphics and sound, for example, are very nice. Oh my wordy yes, very nice indeed, though nothing new (not that I'm complaining, mind you). The range of levels is much greater, rising even unto the lofty pinnacles of 18th level, something not often accomplished in actual AD&D! The spell levels are also greatly increased, allowing mastery of up to 8th level Wizard, 7th level Priest and 2nd level Druid, quite an impressive range of spells, to say the least.



There are new character classes (including my favourite, the Paladin) allowing even the most picky of players to create an adventuring party to their liking. And to combat these new classes what do we expect but new monsters, and there really are quite a lot of them too.

If you like combat orientated adventures, if you just like AD&D, *Drag-onlance* or are simply new to the scene, try this game out by all means. I did, and I love it! □

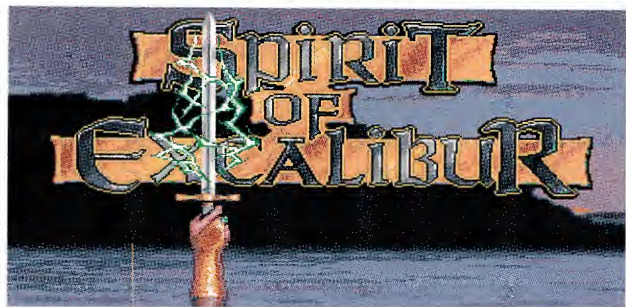


Ratings:

Role Playing:	30%
Documentation:	80%
Graphics:	60%
Sound:	75%
Gameplay:	85%
Overall:	88%

Distributed by:
Electronic Arts
 075 963 488
 RRP C64 \$49.95
 Soon to be released for Amiga

Get ready for some medieval antics as *Phil Campbell* sets out on the quest to become King of Merrie Englande...



Being born with a silver spoon in your mouth isn't as good as it sounds. For one thing, it can be very painful for your mum. And for another, it can get you into all sorts of nasty situations.

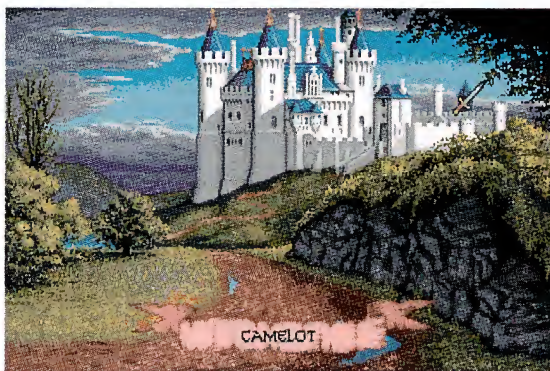
Put yourself in Sir Constantine's boots for a moment. He's a typical medieval "born-to-rule" type of guy, upper crust, educated at all the right schools. And life's not easy at all - especially since the death of King Arthur. Some people want Constantine to take over. And others want him dead.

That's the 'meat in the sandwich' situation you'll find yourself chewing over in *Spirit of Excalibur*, a chivalrous medieval tale set in the Merrie Englande of 539 AD. The first challenge is to guide Constantine safely to the throne. Then you will preside over the Knights of the Round Table in an effort to bring stability to your fragmented nation, while fighting off the evil advances of Melehen and Morgolon. When you sort that lot out, there's more. Like a giant warrior at the walls of Camelot. Or the Enchanted Knights of the Forest Sauvage. And in the final episode, Morgan Le Fay's Revenge.



Spirit of Excalibur is a beautifully crafted game. Even the instruction manual is a work of art - the text reflects thorough historical research, and the delicately tinted woodcuts add an authentic touch of atmosphere.

The quality is just as apparent on the screen. The game is controlled from a scrolling map display, with a *HyperCard* style system giving access to close-up pictures of each village and castle. With a colour palette picking up the lush



greens of the English countryside and a style reflecting the influence of medieval tapestry, the graphics are dazzling.

Spirit of Excalibur breaks traditional boundaries. It's a blend of fantasy role playing, adventure and combat simulation, with an optional dose of action in the fight sequences. Early in the game, for example, I encounter a monk. "Ah, Lord Constantine," he exclaims, "You have come just in time. The evil Knight Lupinus has challenged Sir Villars to single combat. But Sir Villars himself is recovering from wounds he received in Wales. Will you stand as champion in his place?"

Always eager to impress, I accept the challenge. In a traditional Role Playing game, the outcome of the battle will depend on the accumulated skill-points of your character rather than your speed with the joystick. You can certainly play it that way if you

prefer, but if you're itching for action you can take over, controlling every thrust and parry for yourself. This time I

simply choose to watch, as Constantine makes easy work of his enemy. In moments Lupinus lies dead on the cobblestones, and the grateful Sir Villars falls to his knees. "My Lord Constantine," he says, "You are a worthy successor to King Arthur. I swear my eternal fealty to you and the realm." A good start in my quest to become King.

Soon I have added Sir Gahalan-tine to my list of allies. Then there's a tactful donation to the influential Abbot of Salisbury and some clever political manoeuvring, and by the time I arrive at Camelot I'm welcomed with open arms. "Long live the King!" But that's just the beginning - and after a quick meeting of my cabinet around the famous table, we're off on our very first quest. Now role playing fans will really be in their element, with characters to select, equip and galvanise into a first-rate team.

To my mind, the best thing about *Spirit of Excalibur* is that it's simple to play. Sure, it's beautifully presented. And sure, there's depth - plenty of it, with hundreds of computer generated characters and cities scattered around the 16 screen scrolling map. But in this case, style, depth and simple fun are superbly blended into a thoroughly engrossing game. □



Distributed by:
Mindscape
02 899 2277
RRP Amiga \$69.95

Ratings:
Graphics: 86%
Sound: 79%
Gameplay: 83%
Overall: 84%

Hill St. Blues



It's Roll Call - 7:03am. Sergeant Esterhaus is at the podium, and he's waiting to give out the assignments for the day. No, this isn't the TV version of *Hill Street Blues* we're talking about here - it's the Pacronics version for the Amiga.

At first I must confess I was a little disappointed. I'm not sure what I was anticipating, but when I booted-up the game it was something completely unexpected. This isn't the fast-action, shoot-'em-up I thought it might be. This game involves thought and planning. Mind you, after a few attempts, I was hooked! Your job is to keep the crime rate under control in the Hill Street precinct. At your disposal are nine officers (Coffee, Hill, Renko, etc. - all the regulars). You can dispatch them as you wish to fight crimes as they're reported to you over the radio. It takes some time to get the hang of this. When you're sending out nine officers it becomes a little difficult to remember where they are or who they're looking for. (I'd suggest you have a pen and paper handy to make notes.)

At any point in the game you can go to Captain Furillo's office. From here you deploy your officers, inspect the crimes available for investigation, check on the morale of the officers and see if you're managing to keep the crime rate under control. This, really, is the engine

room of the game.

The screen displays an aerial view of part of the precinct. As you select an officer you'll view the part of the precinct where he's investigating his crime. As soon as you spot the suspect, arrest him and take him back to the station.

When you do make an arrest you'll need to make good notes about the suspect and the crime. Why? Because you'll have to go to court and identify the suspect as well as give details about the arrest (by the way, Joyce Davenport is there to represent the crook in court). You'll have to identify the alleged criminal in a line up - if you can't he'll go free.

The sound in the game is limited to a bit of city noise - cars and horns, and the siren of your patrol car. Not too exciting

- but noise isn't the point of the game. The game looks good. The graphics are sharp and the whole thing flows well. From your aerial view there are cars moving around, pedestrians, garbage in the street - it all looks very realistic.

Hill Street Blues is a great game of skill and planning. I liked the game a lot - it gave me the chance to fight crime along with my TV heroes. If you're looking for fast action and lots of violence then forget about the Hill. But if you're looking for a game to test your skills of organisation and strategy, then this is the one! □

Luke Tattersall

Ratings:

Graphics	82%
Sound	58%
Playability	76%
Addictiveness	73%
Overall	78%

Distributed by:

Pacronics
02 748 7400
RRP Amiga \$59.95

Esterhaus. I will process all the criminals that you arrest and bring back to the station



MICHAEL SPITERI'S

Adventurer's Realm

If you are stuck in any adventure game, or if you need a push in the right direction, send your problem to: **Adventurers Realm, 12 Bridle Place, Pakenham, Vic 3810.**

If I can help, I'll send you the answer to your problem. If I cannot help, your problem will appear among these pages and eventually someone will write in with assistance. Hint sheets for the following adventure games are available free of any charge:

Zak McKracken, Maniac Mansion, Indy, Zork I, Zork II, Zork III, Bards Tale I, Bards Tale II, Bards Tale III, Guild of Thieves, Jinxter, Pawn, Fish, Uninvited, Deja Vu, Hampstead, Hitchhikers Guide, Faery Tale, Borrowed Time, NeverEndingStory, Dracula Pt2, Hobbit, Adventureland, Pirate Adventure.

Choose up to four, enclose a stamped addressed envelope, and send your request to: **Free Hint Sheets, 12 Bridle Place, Pakenham, Vic 3810**

The Realm also caters for those who love role-playing-games (such as *Pool of Radiance, Azure Bonds*, etc). If you are stuck in a role-playing game, write to Kamikaze Andy - alias Andy Phang:

Realm's RPG Dungeon P.O.Box 315, Maddington, WA 6109.

Andy does not have hint sheets, and like me, will not reply to any letters that do not have a stamped addressed envelope enclosed.

If you have a modem, you might like to log on to **Island BBS** - Realm's official bulletin board. You can leave your queries on the Realm's BBS mailbox, and even chat with other adventurers, or download hints and tips. **Island BBS** also offer many other interesting things for you to explore, and membership is a few dollars if you decide to join. It is available 24 hours a day - ring (03) 742 3993.

Finally, *The Official Adventurers Realm Hint Book* is out now at a newsagent near you. It costs \$9.00 for specialised hints covering over forty adventure games. Can't find a copy? Ring (02) 398 5111 and ask for Darrien. □

About the Realm

Adventure games - they have been around in some form or another for years, and for over three decades thousands of adventure games have been played on all sorts of computers.

Just when you thought the era of the adventure game had come to an end, when the likes of perplexing parsers, compelling stories, and braitesting problems seemed to be a thing of past, and the days of solving Infocom classics are all but gone; just when you had begun to accept that role-playing games are the closest you would ever get to reliving that old adventure game magic, an exciting stream of new adventure games have rolled out - begging to be solved.

Next month, *Adventurer's Realm* will be celebrating five years of bringing together and helping adventurers from all over Australia. The fact that an article can run for five years covering just one facet of computer games is enough of an indication that adventure games are here to stay!

New exciting releases from ex-Infocom author Steve Meretzky, *Magnetic Scrolls*, and *Sierra* are leading what appears to be a strong return to the excitement, addictiveness and fun that made adventure games so popular in the first place.

Next month, the Realm will be looking back at the progression of adventure games through history, and what we can expect in the future. There will be a huge selection of hints and tips, and even a few goodies for you to win. So if you're an adventure fan, don't miss next month's bumper Realm section! □

Realm's Chit Chat

Clever contact Scott Logan is thinking of starting a small adventure club for Commodore 64 adventurers. Send a stamped addressed envelope to Scott (address is in clever contacts section) for more info.

Kylie Daley wrote in asking for a list of adventure games the Realm stocks. Eh, I'm afraid the Realm doesn't stock adventure games. We do stock hint sheets, however!! Kylie would also like some help in *Pool of Radiance*.

Mark Bishop of Wagga Wagga writes.... "I was recently given a disk with the game *Sorcerer* on it. Unfortunately, I was not given the instructions on how to play the game. As it looks like an interesting game, I was wondering if you could help me in obtaining a copy of the instructions." MS: Out of the question! Don't you know its illegal to pirate programs? Does anyone have an original copy of *Sorcerer* they could sell Mark?

Clever Contacts

A couple more clever contacts who are willing to volunteer their time and effort to help troubled adventurers. Firstly, a big thank you to all our clever contacts, and secondly, always enclose a stamped addressed envelope when writing to a clever contact.

Scott Logan, 9 Colington Street, Mansfield, Brisbane, QLD 4122 can offer help in.... *Pool of Radiance, Zak McKracken, Temple Curse, Last Planet, Island of Spies, Adventureland, Curse of Azure Bonds, and Corruption.*

Allan Mills, 36 Pickworth Street, Holt, ACT 2615 can offer help in: *Maniac Mansion, Ultima 1,2, Neuromancer, Space Quest 1,3,4, Leather Goddesses, Larry 3, Pool of Radiance, Curse of Azure Bonds, and starters in Kings Quest IV.* □

The Dungeon by Kamikaze Andy

Congratulations must go out to Accolade, who did a fantastic job converting its hit text-graphics adventure *Search for the King* to the Amiga. With 32-colour graphics and superb music, *Search for the King* is definitely one of the best adventures of the year. Amiga owners who buy the game also get a bonus hintbook thrown in, which will come in handy as you attempt some of the weirder puzzles.

By the way, Accolade will release *Altered Destiny* (again, it's a magnificent Amiga conversion of an IBM-PC adventure) next month, and hopefully *Conspiracy: The Deadlock Files* (which will feature digitized photographs as graphics,

will require 1 megabyte of memory and a hard disk is recommended.

SSI has just brought out its long awaited Amiga conversion of *Secret of the Silver Blades* (the third in its *Forgotten Realms AD&D* series), which should please many RPG fans. However, there isn't much of a difference graphics or soundwise, and the gameplay is pretty much the same as previous efforts (effectively, lots of combat!). The fourth installment of the series is already planned for release in early January, and is tentatively titled *Pools of Darkness*.

The sequel to Buck Rogers has been put back to next year as well, and there

and will also be released for CDTV) by the end of the year. There will be a sequel to *Search for the King*, and it will feature a mouse "point and click" interface instead of the type-in parser used in the first game. Look for the sequel early next year. All games

bird's-eye view that was used in the previous six games. In fact, *Ultima VII* will closely resemble *Wing Commander* in interface, being a first person perspective game!! How die-hard *Ultima* fans will take to such news will depend on how Origin implements the new system. Sources in the company claim that using such a method makes the game easier to play, and more realistic. Hmm. We'll have to wait and see (and when I mean wait, I mean wait! *Ultima VII* is scheduled for Amiga conversion sometime late next year!).

Speaking of all things Origin, designer Chris Roberts has started work on *Road Commander* (tentative title), which will use an interface similar to his ground breaking *Wing Commander*, but set on solid ground. Details of the game is still sketchy, but the Dungeon will bring you updates as they appear. Mindscape UK has done a pretty good job converting *Wing Commander* for Amiga, using 32 colours and ray-traced graphics. Expect it out sometime in October.

Finally, many of you are probably wondering whatever happened to *Land of Legends*, a much touted RPG that was supposed to be out in 1989, but has yet to be seen? Well, publishers MicroIllusions seem to have gone out of business, and with it goes *Land of Legends*. Hopefully some other company will pick up the title, which had colourful graphics and lots of potential.

The sequel to MicroIllusion's most famous title, *Faery Tale Adventure*, is definitely coming out on Amiga format later this year, but this time it's distributed by New World Computing. Along with *Faery Tale II*, New World will be coming out with *Might and Magic III: Isles of Terra* for Amiga sometime in December. It features some of the greatest graphics ever seen on 16-bit machines, and also utilises a fair amount of digitized speech! Unfortunately, New World has confirmed that since the game is so large, a hard disk is absolutely essential to play the game.

Planet's Edge is another RPG coming up from New World, but it has a science fiction scenario and features overhead *Ultima VI* style graphics, rather than the usual *Might and Magic* 3D view. Expect it in January! □



Eye of the Beholder

Problems, Problems & more Problems or the Troubled Adventurers Dept.

Alas, here are some problems that need solutions quickly. If you can help out, please write it soon!!

Chris Stratton from Victoria is stuck on *Star Command*, in the mission where the Princess' ship was attacked and she escaped near a black hole. How does Chris find her?

(Chris would also like some help with the swamp in *Legend of the Sword*!)

George Glover of Queanbeyan in NSW would like any help for two games- *Astrobus Affair* and *Runaway*.

The Loser from Bondi Beach, NSW, desperately needs some help in *Buck Rogers*. He is up to the part of the game that involves the smashed spaceship (Level 2). He's not really sure what to do!

Vicky Cooke from Salisbury Nth in SA is stuck in *Island of Spies*. She is on the mining ground, has moved the rock and truck to reveal a tunnel leading south, but she cannot seem to go south. Help needed soon, please!

Battletech has claimed yet another victim, this time in the form of **Brian Jewitt** of Ashgrove in Queensland. Brian is stuck in the map room and is unable to gain access to the room off it. He requires the password, and hopes to find the white code in there to send off the message to K. (?). Only a *Battletech* expert can help Brian.

Darren Healy of South Windsor writes to me with a *Lemmings* problem! (Arrgh! I had a feeling a few of these would creep through!) He is stuck on Tricky Level 26 (BKONMNFKIFQ). If anyone can help Darren, please send it to Phil Campbell's section! Darren is also stuck in *Shadowgate*. Any hits will help him out.

Finally, **Christine Hill** of Florey, ACT is stuck in the *Jetsons*. She can get George Jetson to the planet of Robotopia, but she does not know what to do next! Any takers?

Help, Help & more Help or the Smart Adventurers Dept.

If you were stuck a few months back, then there is a good chance the answer to your problem is here - below!!!

Many thanks to those who kindly sent in their hints.

Game: Kings Quest 4

For: Stuart George (June issue)

From: Dale Priem, Oyster Bay, NSW.

Help: Firstly, when you are on the pier you must jump off and swim west for three screens, avoiding the sharks. You will come to an island, and if you search all the beaches you will find a peacock feather. Secondly, the caves behind the waterfall have a number of screens. You must save the game before you go into

each screen, and if the troll is there you must restore the last game (sometimes he is not there).

Finally, you cannot get into the giant's house until you have brought the unicorn to the evil witch. After that, the door will be unlocked.

Game: The Jetsons

For: Matt and Luke Walsh (June issue)

From: Christine Hill, Florey, ACT.

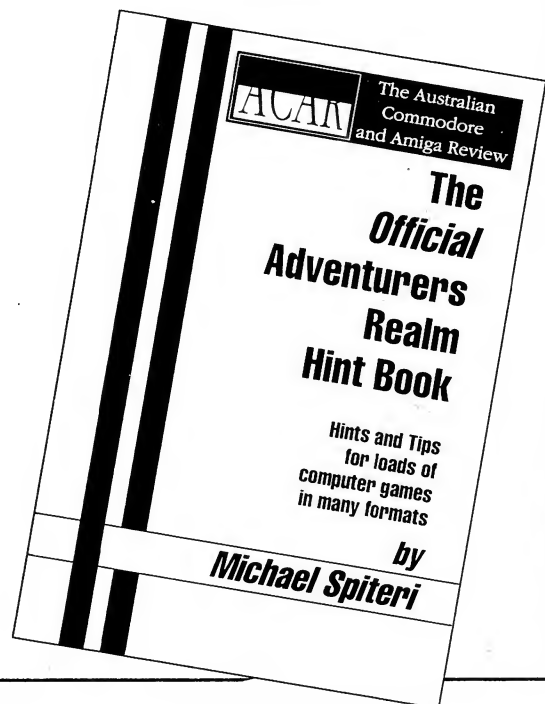
Help: Go into Judy's room, and move her computerised dancing shoes. The car keys are under them. From the living room, shut down to the garage. Use the keys to unlock the car and open the canopy. Entering the car will automatically take you out of the house, but you can always return. Don't forget to go into the living room and get the briefcase (in the lower right-hand corner of the screen). I also get the bowls and magazine on the coffee table, but I haven't found a use for them yet! There is a credit card in the drawer of the night-table (in the main bedroom), which is quite handy at the shopping mall. □

Stuck in an adventure game? Need help? - get your copy of the Official Adventurer's Realm Hint Book now!

Hints and tips on more than 40 games, compiled by Michael Spiteri, whose "Adventurers Realm" appears every month in this magazine.

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Randwick, 2031
(02) 398 5111



VECTOR CHAMPIONSHIP RUN

If you're a Formula One freak like me, then you're the type of person who sits around till 1.00 am to see the races live. In the end, though, we car racing freaks always end up hanging out for a slice of the action - there'd be nothing like doing a bit of racing yourself, would there? Well, now it's almost possible - thanks to *Vector Championship Run* by Zeppelin Games.

Ratings:

Graphics: 87%

Sound: 80%

Gameplay: 90% - mouse
40% with joystick

Overall: 89%

A snappy soundtrack introduces you to the selection screen. There's a choice of six Formula One circuits (including Monaco and Silverstone), and you can also opt for controlling your car via the joystick or the mouse. It turns out that using the mouse is the smoother way to

control your temperamental and jerky Formula One car - so if you want to avoid frustration, ditch the joystick for this one.

The 3-D graphics are great! From the cockpit of your car it's quite easy to get the sense of sweeping into the bends. But hit the railing or another car and you'll know all about it - the crunches help you enter into the Formula One world of buckling panels and dented egos. I managed to actually overtake a few competitors, but in the end the gameplay still had heaps of challenge left in it. Yep, this one's worth your while. (MF)

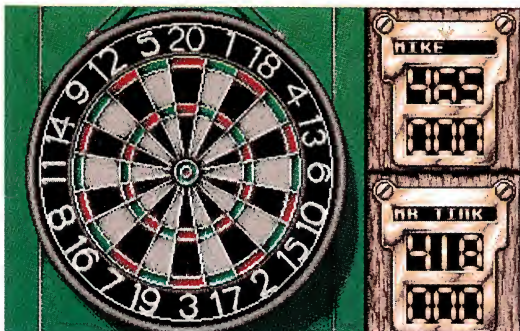


Distributed by: **Pactronics** 02 748 4700
RRP Amiga \$49.95

Hey - pssst! Are you into the pub scene? You know, the smokey social dens of the average working man - the place where you watch the greyhound races on the Skychannel and knock back a few beers with the boys. Where the jokes get a bit on the bawdy side, and everybody gets into a good game of darts.

Especially the darts! There's no substitute for hearing the satisfying clunk of a well-aimed dart hit the board. *Jockey Wilson's Darts* is what you'll be using on your Amiga. The package features three separate dart games - Tournament Play, Two Player Head-to-Head, and the 'Round the Clock' game.

The graphics in this package are really quite good. You're confronted with a normal matchplay dartboard, with your dart floating around in the foreground.



When you want to throw the dart, hit 'fire', and you'll see your dart lob towards the board. Clunk! There's a score-board on the screen which keeps track of your progress. Sound effects are nice, with a digitised referee calling the shots.

Other than that there's not too much else to it. After all, darts are darts. The good thing is that you don't end up with holes in the wall when you miss the board. And at the budget price of \$19.95, it's worth snapping up. (MF)

Distributed by: **Pactronics** 02 748 4700 RRP Amiga \$19.95

Ratings: Graphics: 75% Sound: 70% Gameplay: 75 %
Overall: 75%

Super Off Road sets you in the drivers seat of a mean lookin' 4X4 - you're at the starting line, head to head with three other drivers. They can be human like yourself, or computer controlled. If you want to play with your mates, one will use a joystick in port 0, the other will use the keys, and you will use the joystick in port 1. Fair enough, unless you're the sucker stuck with the keyboard!

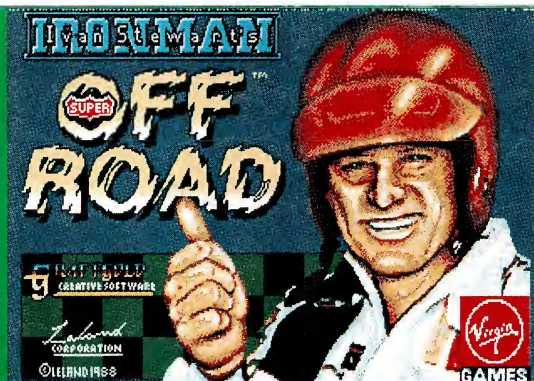
The green light flashes, and the race is on. Point your truck where you want it to go and push forward on the joystick and you'll start thrashing round the track - it's a fair dinkum sand-pit affair, a dirt track with humps, bumps and water traps everywhere. High fences around the track keep you more or less on course, but in the early stages it's easy to find yourself going backwards in the bun-rush.

There are bonus nitro tanks to intercept, as well as cash prizes - they'll appear at random on the track, ready to be picked up by the first car on the scene. Bonus cash can be used at the end of the race to upgrade your car, with a bigger engine, better tyres and more nitro for turbo boosting your performance.

Graphics in *Super Off Road* are beautiful - the tracks are highly detailed in 3-D perspective view. The four brightly coloured cars are nicely done too.

The action is fast and smooth, though joystick control takes a bit of getting used to. This is one of those "push forward for straight ahead" systems, with left and right pushes to turn your on screen vehicle left or right around the track.

Fans of *Super Cars* and other "view from the top" style car race games are in for a real treat with *Super Off Road* - it's much better than its predecessors in almost every respect.



Ratings:

Graphics: 86%

Sound: 75%

Gameplay: 82%

Overall: 85%

Distributed by:

Mindscape

02 899 2277

RRP Amiga \$49.95

C 64 disk \$39.95

C64 cass \$29.95



NINJA RABBIT

It's hard to know how seriously you're meant to take a game with a name like *Ninja Rabbit*. And when the star of the show has fur, buck teeth and a pair of lanky ears, it's even harder.

Seriously though, doc, for a budget title *Ninja Rabbit* ain't bad at all. There's plenty of beat-em-up action against a number of classy looking backgrounds. Various Stoats, Newts and Weasels line up for a punishing round with the Rabbit - then it's down the burrow for some underground action. Down here there are falling rocks to contend with, flurries of furry fiends, and later, golf balls to dodge as you wander across the local driving range.

The game's Ninja moves are fast and smooth, with good response to the joystick. Jump kicks make a satisfyingly rabbity "boing" - but other than that, the action really means business.

Graphics are lovely - the English countryside in the background is a real treat. The main characters are large and well defined, looking remarkably realistic for such an unrealistic game. Sound effects are effective, with all the mandatory grunts, groans and slaps. Worth a look. □



Ratings:

Graphics: 79%

Sound: 74%

Gameplay: 74%

Overall: 78%

Distributed by:

Pactronics

02 748 4700

RRP Amiga \$19.95

King's Bounty

I think the name says it all. You are a bounty hunter for a bloke known as King Maximus. Now this king was a bit careless and left his Sceptre of Order lying around. Areth Dragonbreath's henchmen stormed the castle and stole the sceptre and plan on using it for their own evil ways. This is where you come in. You have to find the sceptre on one of four islands. You have to find villains in castles and beat them, then garrison their castle and use it for your own use. Each villain you defeat has a piece of a map. The more villains you capture the easier it gets.

King's Bounty is an adventure game, strategy and action game all in one package. The graphics are in the format of the *Ultima* series and the music/fx are also good. To start the game you have

to pick a class of player. There are four to pick from. There is a paladin, a knight, a barbarian and a sorceress. Each of them have qualities that excel others but they all have their downfalls. Then you get to pick how long you need to find the sceptre. The maximum is 900 days and the least is 150. Then it is off to the game.

You start on the island Continentia and have to find seven villains and a map to go to the next island. There are castles, towns, roaming beasts that want a fight, dwellings where you can recruit soldiers for your army, and treasure chests with lots of goodies inside.

I am a person hard to please and I don't really like adventure games but this one is the best I have played and it is recommended to all adventurers - it's also very addictive. (JG) ☐

Ratings:

Graphics: 80%

Sound: 70%

Gameplay: 84%

Overall: 84%

HARPOON BATTLESET II

North Atlantic Convoys

Ratings:

Graphics & Sound: NA

Gameplay: 85%

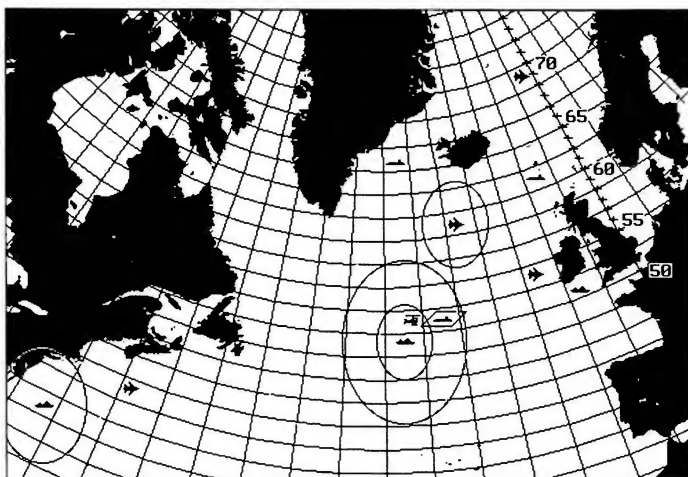
The first in a series of extra scenario disks for *Harpoon*, *Battleset II* again pits the Soviets and NATO in a conflict over European territory. Set in the 1990s, Europe is under the threat of a massive Soviet invasion after the demise of Perestroika and Glasnost. Russian Hardliners have taken over the Kremlin, and their first act of government is to attack and subdue NATO forces in the continent before reinforcements can arrive from the United States (a scenario many strategists consider a real possibility, especially if Gorbachev fails in his push for reforms).

In the tradition of *Harpoon*, you won't be controlling the land forces of either side, rather you will take charge of the naval activities on the Atlantic after war has broken out. If you're the Soviet Commander, it is up to you to deter, damage, delay, and destroy the supply vessels that make their way across the ocean. Play the part of the NATO commander, and your task will be to safely guide such vessels into friendly European harbours, and hopefully turn the tide against the Red Machine.

This and other *Battlesets* require the original *Harpoon* to run, and will also contain some details on new types of naval and air units. Like *Harpoon*, the *Battleset* series of disks is one of a growing number of products that will support any Amiga hard drive (vital in a game of this nature). (AP) ☐

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